

Spring June 8th, 2018

Design, Implementation and Perceptions of a Preservice Mentor Development Program

Jill R. Heiney-Smith
Seattle Pacific University

Follow this and additional works at: https://digitalcommons.spu.edu/soe_etd



Part of the [Teacher Education and Professional Development Commons](#)

Recommended Citation

Heiney-Smith, Jill R., "Design, Implementation and Perceptions of a Preservice Mentor Development Program" (2018). *Education Dissertations*. 35.

https://digitalcommons.spu.edu/soe_etd/35

This Dissertation is brought to you for free and open access by the Education, School of at Digital Commons @ SPU. It has been accepted for inclusion in Education Dissertations by an authorized administrator of Digital Commons @ SPU.

Design, Implementation and Perceptions of a Preservice Mentor Development Program

by

Jill R. Heiney-Smith

Dissertation presented to the

Faculty of the Graduate School of Education at Seattle Pacific University

in Partial Fulfillment of the Requirements for the degree of

Doctor of Education

Seattle Pacific University

February, 2018

Approval Page

Design, Implementation and Perceptions of a Preservice Mentor Development Program

by

Jill R. Heiney-Smith

A dissertation submitted in partial fulfillment

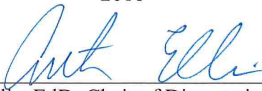
Of the requirements for the degree of

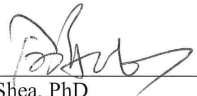
Doctor of Education


Seattle Pacific University

2018

Approved by


Arthur Ellis, EdD, Chair of Dissertation Committee


Munyi Shea, PhD


David Denton, EdD

Program Authorized to Offer Degree

School of Education

Date

AUGUST 2018


(Nyaradzo Mvududu, Ed.D., Dean, School of Education)

Copyright Page

Table of Contents

List of Figures	iv
List of Tables	v
List of Appendices	vi
Acknowledgements	vii
Abstract	
Chapter One: Introduction	2
Problem Statement	4
Research Questions	4
Theory and Significance for Research and Practice	4
Research Design, Method and Sampling	6
Breadth and Limitations of the Study	7
Summary	7
Chapter 2: Literature Review	9
Introduction	9
Definitions	10
Theoretical Framework	11
Literature Selection and Review Methodology	14
Search Criteria 1 to 3, Broad Research on Teacher Mentoring	15
Search Criteria 4-Mentoring as Professional Development	19
NTC Induction Curriculum-Features, Materials, Resources and Artifacts	21
Selected Studies	23

Evertson and Smithey (2000)	24
Henning et al. (2016)	27
Graham (2006)	29
Discussion	33
Chapter 3: Methodology.....	36
Participation and Sampling	38
Procedures	40
Instrumentation, Reliability and Validity	43
Ethical Considerations	46
Summary	46
Chapter 4: Results	48
Results from Phase 1	49
Results from Phase 2	52
Results from Phase 3	53
Phase 3 Data Triangulation	58
Summary of Results	60
Preview to Discussion	61
Chapter 5: Discussion and Recommendations.....	63
Connections and Confirmation of Prior Research	63
Discussion and Recommendations	67
Topics for PD	67
Format and Delivery of the Presentation	67

Recommendations for Curriculum Implementation	68
Discussion on Methodology and Validity	71
Limitations	71
Further Research	73
Conclusion	73
References	75
Appendices	83-109

List of Appendices

Appendix A1. Sample of Exit Cards from Phase 1

Appendix A2. Sample of Exit Card Responses from Phase 1

Appendix B. Likert-Scaled Survey Items from Phase 2 (16 of 30, Aligned with Research Questions)

Appendix C1. SPSS Printout Cronbach's alpha

Appendix C2. Exit Cards from PD Events in Phase 3

Appendix C3. Email Correspondence with Investigator in Phase 3

Appendix C4. Investigator Field Notes from Phase 3

Appendix C5. Coding Scheme from Field Notes Triangulation in Phase 3

Appendix D1. Agenda for First Mentor PD, Phase 3

Appendix D2. Handouts from First Mentor PD, Phase 3

Appendix E1. Agenda from Second Mentor PD, Phase 3

Appendix E2. Handouts from Second Mentor PD, Phase 3

Appendix E2. Handouts from Second Mentor PD, Phase 3

Appendix F1. Internal Review Board Letter of Approval

Appendix F2. Informed Consent Form

List of Figures

Figure 1. Sequential Mixed-Methods Design.....	37
--	----

List of Tables

Table 1. Five Stages of Skill Acquisition-Dreyfus and Dreyfus	17
Table 2. Correspondence Between Design Elements of Mentoring and Characteristics of Effective PD	20
Table 3. Washington State Criteria for Teaching	23
Table 4. Content Model for Mentor Workshops	26
Table 5. Characteristics of the Two Perspectives of Mentor Teachers	33
Table 6. Phase 3 Representation of Mentors by Teacher Education Program	41
Table 7. Summary of Data Sources	43
Table 8. Example of Set Topics Coded From Mentor Feedback After PD Activities...	51
Table 9. Percent Response to “Which of These Areas Is Important for Learning to Work More Effectively With Student Teachers?”	54
Table 10. How Did the Presentation Develop or Constrain Mentors’ Reported Experience?	56
Table 11. Comparison of PD Activities and Tools	57
Table 12. Summary of Mentor Perceptions of the Overall PD Experience	58
Table 13. Four Themes Triangulated With Data From Field Notes	61
Table 14. Comparison of Mentor Teacher and Teaching Experience	67

Acknowledgments

In my office, I proudly display the class photo of my maternal great-grandmother's one room school house in rural Missouri, where she in the early 1900s. Each successive generation on my mother's side had one or more teachers in the family, and I knew I would join the family business early in my own education. My deep appreciation for classroom teachers, as well as my understanding of how hard they work, has shaped every aspect of my study. I am so thankful for all of the mentor teachers who participated and who serve P-12 students every day.

Throughout the SPU doctoral program, I was lucky to have many exceptional teachers myself. Thank you to all of my colleagues who shared your knowledge and expertise, and especially to my committee members, Drs. David Denton and Munyi Shea, as well as my wonderful chair, Dr. Ellis. A special thanks also to my colleagues Laurie, Dyana and Elisabeth for all of the event planning and communication with our mentor teachers. Your work, support and encouragement were invaluable.

These past few years of schooling have had the biggest impact on my family and friends. I have been sustained by the Heiney Nation, the Osborn-Nienhuis, Dickinson, Thomas and Luthy families, and many, many other dear friends who I hold in my heart.

My husband Steve and kids Aidan and Ellie were my thought partners, editors, audience, and technical support. We did this together, and you each sacrificed something unique to make it happen. I love you and I am forever grateful.

Abstract

Teacher education programs support their mentor teachers through a variety of resources and professional development, but generally lack a dedicated curriculum for pre-service mentoring. This study was designed to learn what kinds of resources, tools, trainings, and experiences would better support mentor teachers in a teacher education (or pre-service) program. The study was grounded in social learning theories and empirical research on mentoring, as well as research on teacher induction and professional development. Mixed-methods data were collected in three sequential phases with a total sample of $n = 199$ mentor teachers. Results indicate that mentors have sophisticated expectations for their professional development and desire a blend of formats, collaboration, easily accessed resources, and tools to promote reflection.

Key words: teacher education, pre-service, induction, professional development, mentor, mentor development

Chapter 1: Introduction

Effective teacher preparation is widely regarded as a critical component of student achievement. Standards-based reforms have further raised this bar, as new teachers must develop greater knowledge and pedagogical skills than ever before to help their students reach standard (Anderson & Stillman, 2013; Darling-Hammond, Wise, & Klein, 1999; Jaquith, Mindich, Wei, & Darling-Hammond, 2010). Even with the rise of alternative certification programs, which place would-be teachers in a classroom with minimum training and support, the primary method of teacher preparation remains the mentored internship (Feiman-Nemser, 2012; Henning, Gut, & Beam, 2015). Teacher education programs (TEPs) design clinical field or internship experiences that will provide candidates with opportunities for observation and a gradual release of responsibility. Good TEPs value the critical role of the mentor teacher in the candidate's acquisition of knowledge and skills, and develop systems to train and support the mentors in doing this work. However, there is a dearth of true curriculum for pre-service mentoring. TEPs are left to assemble the right combination of basic programmatic information and requirements, state mandates for clinical experience, and professional development (PD) that engages mentors in this very human work. This supports Feiman-Nemser's (2001) findings that mentoring training tends to focus on classroom management, situational adjustment, emotional support, and school policies.

A related field is teacher induction, and there is a growing, yet still limited body of research relating successful induction programs to effective mentoring (Henning, Erb, Randles, Fults, & Webb, 2016; Moir, Barlin, Gless, & Miles, 2009). Many resources for induction, which come largely in the form of district-based professional development

(PD), can be applied to the pre-service model; however, these materials ignore the significant differences between a pre-service teacher and a novice teacher, including the lack of autonomy, complexities of co-teaching, and uneven distribution of power.

Broadly speaking, this study was designed to see what happens when a field experience office in a university-based teacher education program develops and implements a mentoring curriculum specifically designed for pre-service teacher mentors. Rather than simply an adaptation of available induction curricula, this curriculum was informed by previous program data and based upon empirical knowledge about pre-service teaching. Further, the focus of the study was not to examine how students perceive their mentors' effectiveness, as some do (Henning et al., 2015; Haymore Sandholtz, & Wasserman, 2001), but to analyze how mentors perceived their own experience with the curriculum as a tool for improving their mentoring practice through professional development.

For example, the archival program data showed that mentors had sophistication regarding their mentoring needs. They are teachers themselves and they expect effective instruction, organization, and complex content in their professional development. Mentors seek support from exemplary mentors in topics such as relational problem solving, effective communication, and guidelines for providing effective feedback. This sophistication guided the development and curriculum in the present study and echoes what Knowles (1990) called the andragogy, or "art and science of helping adults learn" (p. 54). Knowles (1990) organized his studies around informal, comfortable, flexible, and non-threatening settings, a goal shared by the present study.

Problem Statement

The purpose of this study was to learn what kinds of resources, tools, trainings, and experiences would better support mentor teachers in a teacher education program. Specifically, the study explored the perceptions of a new curriculum implemented with a small group of mentor teachers who signed up for additional professional development (PD). This curriculum was developed in three sequential phases. The complete curriculum for the PD can be found in Appendices D1-D2 and E1-E2, while each chapter will describe its evolution in some way.

Research Questions

According to Richards and Morse (2007), a mixed-methods design may be used when a single method will not produce comprehensive findings. As such, the research questions must be drawn from the type of data that will produce the most comprehensive and compelling results. Because the quantitative archival data would indicate only broad outcomes of mentor trainings and development, a qualitative element allowed for rich descriptive understanding of the phenomenon. This study had two research questions.

Research Question 1: What are the characteristics of an effective pre-service mentoring development program?

Research Question 2: What features of the curriculum did mentor teachers report developed or constrained their experience?

Theory and Significance for Research and Practice

Professional development for teachers has become big business (Center for Strengthening the Teaching Profession [CSTP], 2013) and materials, tools, and ready-made curriculum can be easily found with a search in Google. However, the basics of

preparation and support of pre-service mentor teachers has not changed much since a 1971 publication by Putt, who noted that a decision to mentor “implies that the classroom teacher is faced with a new dimension in planning and this must be realized by the teacher if the student is to get more than a series of unrelated and professionally meaningless experiences” (Putt, 1971, p. 5). Initially, the investigator hoped to draw a correspondence between effective mentoring development and change in mentor teacher practice. However, upon analysis of end-of-program mentor surveys over a several-year period, it became clear that it is difficult to detect in a survey exactly what mentors perceive regarding their own change in practice due to the general work of mentoring, let alone due to mentoring development. This shifted the focus to developing a deeper understanding of the characteristics of an effective mentoring program. The study was enhanced through the use of both ex post facto data and new data collected during the study, in a sequential mixed-methods design. Hearing the voices of mentors who participated in an intensive mentoring program during the study brought their needs and experiences to life.

According to the refined research questions and theoretical approach previously noted, the study was grounded in theoretical frameworks including Vygotsky’s (1978) social learning theory of human cultural and social development and Lave and Wenger’s (1991) situated learning theory. The literature review revealed a scarcity of valid curriculum for supporting pre-service mentor teachers, which consequently requires teacher education programs to adapt resources and research from teacher induction. Several of these resources will be presented and analyzed in Chapter Two. Additionally, the literature review surfaced the complex role that mentors play in balancing their

responsibilities to their K-12 students, the teacher candidate, and their own desire to grow in their own professional practice.

Research Design, Method, and Sampling

This study used a two-dimensional mixed-methods sequential bracketed design (see Caracelli & Greene, 1993; Onwuegbuzie & Collins, 2007). Qualitative data in phases one ($n = 108$) and three ($n = 6$) were gathered using open-ended items after mentors participated in PD activities. Items asked general questions such as what worked well, what was most helpful, what would you like to learn more about, and what could be improved. Phase three also included analysis of email correspondence and the investigator's field notes. The quantitative phase (2) included a survey of 85 mentor teachers with objective items aligned with topics found from the first qualitative phase. All data were collected from mentor teachers of both undergraduate and graduate pre-service teachers who chose to participate in the professional development and/or the survey. The sample and sampling methods varied and will be described in detail in Chapter three.

The qualitative methods used in the final phase of data collection (phase three) allowed the investigator to extract and describe common meaning for six individuals in their lived experience of mentoring (Creswell, 2013). As Creswell (2013) noted, qualitative research needs to happen in a natural setting, so collective exit data from mentor events were appropriate. Further, data were analyzed using "multiple levels of abstraction" (Creswell, 2013, p. 54) that allowed the investigator to build patterns or categories that emerged in the data.

Breadth and Limitations of the Study

In order to effectively address the two research questions, the literature review in Chapter Two needed to tend to existing research on pre-service and induction curricula for mentor teachers, as well as the sociocultural theoretical frameworks developed by Vygotsky (1978) and Lave and Wenger (1991). Chapter three demonstrates how the sequential mixed-methods design determined the features of the mentor curriculum developed for phase three. The results of each phase were analyzed and will be reported in chapter four, while chapter five addresses both research questions by discussing both the features of an effective mentoring PD program and the reported perceptions by the mentors who participated in the study.

One limitation of the study is that it required self-selection to participate, and participants were likely already engaged in the work of mentoring. This was true for the larger sample in phase one, and even more true of the small group of six mentors in phase three, who chose to participate in at least two more face-to-face sessions beyond what was generally expected of mentors. While the study was not intended to draw causal conclusions (Robinson, Levin, Thomas, Pituch, & Vaughn, 2007), it needed to be carefully designed and analyzed in order to capture common lived experiences and needs of pre-service mentor teachers. Finally, because the investigator was a key facilitator at the PD events, it was necessary to explicitly consider and detail the relationship to the research (Creswell, 2013).

Summary

There is a substantial body of research regarding mentoring and its critical influence on the mentee (Darling-Hammond et al., 1999). Additionally, research groups

such as the New Teacher Center (Moir et al., 2009) and The Center for Strengthening the Teaching Profession (CSTP, 2013) advance the research and curricula available for new teacher induction. However, these resources do not address the particular needs and realities of pre-service mentors. This gap in the research is notable, and it is hoped that the results of this study will offer certain insights to teacher education programs seeking improved strategies for supporting mentor teachers.

Chapter 2: Literature Review

Introduction

Any practicing teacher can quickly recall the fretful, sometimes exhilarating time spent in a master teacher's classroom during the clinical field experience portions of teacher preparation. The term "field experiences" highlights what Anderson and Stillman (2013) called the "decades old, but still essential" (p. 4) question regarding the critical importance on the role of student teaching in the development of a teacher - is teacher education really just student teaching? (Feiman-Nemser & Buchmann, 1987). Rather than entering the broad theory-to-practice debate, this study aimed to narrowly focus on a little-researched aspect of student teaching by examining the preparation of pre-service mentor teachers and their perceptions of such development activities.

The research questions presented in Chapter one were drawn in part from early analysis of the ex post facto data for this study, which suggested findings that also informed the literature review. The early data showed that when articulating their needs for professional development on mentoring, pre-service mentor teachers:

1. prefer a variety of formats,
2. desire flexibility and resources,
3. expect the instructor/facilitator to be effective
4. want to be seen and valued
5. appreciate a tone of respect and authenticity

The early findings confirmed what many studies on the importance of field experiences also revealed, that mentoring a pre-service teacher (PST) is complex, multidimensional, and requires support as well as a specific skillset (Feiman-Nemser, 2001; Graham, 2006;

Haymore et al., 2001; Norman, 2011; Valencia, Martin, Place, & Grossman, 2009 Zeichner, 2010). However, these and other studies analyzed for this review indicated a focus on important, but different aspects of field experiences. For example, Rogers and Scott (2008) studied how the teacher candidate grows and develops, while Labaree (2008) studied the disconnect between university coursework and lived experiences in a student teaching classroom. Nevertheless, there are gaps in research that suggest development of a flexible pilot curriculum for pre-service mentors is needed, one that draws upon available research on mentoring, pre-service mentoring, and professional development for teachers.

Definitions

Though “pre-service” and “induction” are routinely used in educational research, these terms are inconsistently defined. In the context of several articles (Anderson & Stillman, 2013; Athanases et al., 2008; Glenn, 2006), “pre-service teachers” (PSTs) are defined as teacher candidates who are learning to teach while enrolled in some sort of educational program, while “induction” or “inservice” connotes the role of novice teacher within the first year of the profession. Likewise, “mentors” and “mentoring” are also defined differently in the literature (Dawson, 2014). For example, Daloz (1999) suggested the following:

Mentors are guides. They lead us along the journey of our lives. We trust them because they have been there before. They embody our hopes, cast light on the way ahead, interpret arcane signs, warn us of lurking dangers, and point out unexpected delights along the way... (p. 106)

While Bozeman and Feeney (2007) defined mentoring as

A process for the informal transmission of knowledge, social capital, and the psychosocial support perceived by the recipient as relevant to work, career, or professional development; mentoring entails informal communication, usually face to face and during a sustained period of time, between a person who is perceived to have greater relevant knowledge, wisdom, or experience (the mentor) and a person who is perceived to have less (the protégé). (p. 722)

Alternatively, Kochan and Pascarelli (2003) simply defined mentoring as “having 2 or more individuals willing to form a mutual respectful, trusting relationship focused on the potential growth and development of the mentee” (p. 173).

The terms “clinical experience,” “field experience,” and “student teaching” are all used interchangeably in the literature on this topic as a way to describe the learning that happens outside of the university classroom while under the supervision of a master teacher, also called a cooperating teacher or a mentor. Accordingly, this literature review will use the term preferred by each researcher.

Theoretical Framework

Given the cooperative context of student teaching and the multiple layers of learning taking place in a mentor-teacher candidate relationship, Vygotsky’s (1978) social and sociocultural learning theories offer a compelling theoretical framework. Vygotsky’s (1978) zone of proximal development (ZPD) examines the “unique form of cooperation” (p. 169) that occurs between learners within a social context. Mentor teachers act as the More Knowledgeable Other, who gradually release responsibility to the teacher candidate as individual development progresses. The mentor teacher scaffolds the learning of the teacher candidate, just as the learning for K-12 students is scaffolded

within the ZPD. For example, the mentor teacher might demonstrate instruction of a lesson in one period and ask the teacher candidate to lead the lesson the following period. According to Vygotsky (1978), once the learner is able to independently accomplish a task, the scaffolds can be removed. This model fits within the traditional developmental arc of the student teacher, who assumes more responsibility for classroom routines, instruction, and assessment until ready for independent teaching.

Vygotsky's (1978) sociocultural learning theory is the foundation for Anderson and Stillman's (2013) review of the research on student teaching's impact on pre-service teachers. The researchers established the notion that learning requires cognitive resources outside of the individual's head, and within the sociocultural context where participants must negotiate and distribute responsibilities, tasks, and authority (Vygotsky, 1978). According to Anderson and Stillman (2013), Vygotsky's (1978) theories stress both active and interactive participation in the learning process, as well as the teacher or mentor's role in drawing upon knowledge of students to guide activity. Anderson and Stillman (2013) wrote that

it sheds light on the importance of teacher educators coming to view PSTs [pre-service teachers] themselves as possessing varied and complex repertoires of practice, as participating actively in their own learning, as making meaning of new concepts in relation to prior knowledge and experiences, and as requiring opportunities to engage in intentionally guided practice while student teaching. (p. 5)

Finally, Anderson and Stillman (2013) argued that "learning is necessarily situated within and shaped by consequential social, cultural, and historical contexts" (p.

5). “Situated learning” is a nod to another theoretical model related to sociocultural learning theories, Lave and Wenger’s (1991) situated learning theory. This is a useful theoretical framework for the mentor/apprentice model within pre-service teaching. In developing situated learning theory, Lave and Wenger (1991) further explored a version of this interactive, mediated, and “purposeful activity” within the broader framework of sociocultural learning theory. Situated learning theory is grounded in the belief that learners acquire knowledge and skills gradually through participation in social interaction, or communities of practice. Novices learn by observing experts and through everyday activities, therefore learning to speak, act and improvise according to the norms of the community. Lave and Wenger’s (1991) work began with the desire to “rescue the idea of apprenticeship” (p. 29) and further refine how learning is organized through the process of becoming a full participant in sociocultural practice. As such, their research examined the distinction between historical notions of apprenticeship and situated learning as a historical-cultural theory (Lave & Wenger, 1991, p. 32).

Lave and Wenger (1991) discussed the ways in which situated learning theory “provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. It concerns the process by which newcomers become part of a community of practice” (p. 29). Lave and Wenger (1991) argued that unlike previous theories of learning that conceptualize cognitive process as primary and practice as secondary, situated learning theory assumes that learning is both integral and inseparable from social practice. It allows the learner to be engaged in the “transformative possibilities of being and becoming” (Lave & Wenger, 1991, p. 32, 34).

Literature Selection and Review Methodology

Student teaching is widely accepted as an important, and by some the most important, facet of teacher preparation (Anderson & Stillman, 2013; Feiman-Nemser & Buchmann, 1987). The National Council for Accreditation of Teacher Education (NCATE, 2010) identified field experiences as one of three aspects of teacher preparation likely to produce significant outcomes for students (p. 180). However, there is very little research describing how preparation programs optimize the mentor-to-pre-service teacher relationship through mentor teacher development. Accordingly, peer-reviewed articles published between 1985-present were reviewed in ERIC, Google Scholar, and JSTOR for key words including mentor teacher, pre-service mentors, cooperating teachers, mentor development curricula, student teaching, field experiences, and combinations of all of these. Hundreds of titles and abstracts were reviewed for alignment to the present study. When it became clear that there was limited alignment to the research questions, related literature on induction and teacher professional development was also examined. Researchers such as Anderson and Stillman (2013), Athanases (2008), Cobb and Bowers (1999), Darling-Hammond (2013), Feiman-Nemser (2012), and Zeichner (2010) are commonly referenced contemporary thinkers in teacher education. For example, this broad literature summary revealed the traditional view that mentors tend to model and support through availability and encouragement (Zeichner, 2010), while Valencia, Martin, Place, and Grossman's (2009) study found that without explicit support from the university, mentor teachers focused on classroom routines, classroom management, and planning individual lessons.

After culling related but less targeted articles based on the keyword search, it was determined that not a single research study contained a particular focus on mentor development curriculum. Consequently, this comprehensive literature review included several related key ideas. The four review criteria included 1) studies that reveal the importance of mentor teachers upon teacher development, 2) studies that reveal how universities select, train, and support mentor teachers during clinical field experiences, 3) studies that compare the impact of well-trained mentors with poorly-trained mentors, and 4) studies on professional development and induction of new teachers.

In addition to lessons learned in the broad review, three key articles were identified for their alignment to the criteria as well as to the theoretical framework. Each study addressed a different aspect of what Athanases et al. (2008) considered to be the necessary elements of a mentoring program. These include distinctions between the basic materials and resources needed to support mentors from those that provide for more tacit needs, such as the socio-emotional environment, norms, and culture in a classroom. Finally, research on professional development was included in order to allow for a more robust evaluation of the “characteristics of an effective pre-service mentoring development program within teacher education” as stated in the first research question.

Search Criteria 1 to 3, Broad Research on Teacher Mentoring

The broad research on mentoring provides a foundational understanding of the mentor’s importance to student teacher development, as well as the mentor’s own growth as a result of the role. The following studies on mentoring apply widely to all who assume the role, and offer general insights into the characteristics of effective mentors. For example, Levin (2003) suggested that mentoring makes the mentor more

metacognitive, as taking on the role requires a reflection and articulation about why and how they teach (p. 239). Odell (2006) said that teacher education programs working closely with mentor teachers allowed for a connection between university coursework and fieldwork and reported that mentors chose to host new candidates for small benefits such as honorariums and clock hours, as well as a refreshed sense of collegiality.

Another common, though less-optimistic perspective revealed that mentors often feel the pressures of the expanded work load and the responsibility for the academic and practical success of the candidate, often with little university support (Valencia et al., 2011, p. 318). Perhaps the most troubling claim is Zeichner's (2010) argument regarding what classroom teachers (mentors) are asked to do:

On the school side, the classroom teachers who are asked to mentor teacher candidates who are placed in their classrooms for varying periods of time during practicum, student teaching, and internship experiences are asked to do the work of teacher education in addition to fully carrying out the responsibilities of classroom teaching. (p. 90)

Together, these findings suggested that mentoring itself can act as professional development for classroom teachers, but that effective mentoring is not a foregone conclusion without proper university support.

Additional studies help to determine the specific features of an effective mentoring program. A study of mentoring new teachers in Israel (Orland, 2001) found that mentoring is a different teaching context and needs to be a conscious process, rather than an assumed correlation to teaching children. As Athanases et al. (2008) noted, the

successful development of a complex model of learner-focused curriculum, one that envisions the “learner” more broadly than simply the P-12 student, appears elusive.

The Dreyfus model of skill acquisition (Dreyfus & Dreyfus, 1986) could offer a framework for this complex view of the learner in a mentored internship (see Table 1). This model has been adapted and used to frame skill acquisition in a variety of professions, including various medical teaching contexts (Lyon, 2015), and represents a way to conceptualize the progression from analytic and detached behavior to skilled and involved behavior.

Table 1

Five Stages of Skill Acquisition-Dreyfus and Dreyfus (1986)

Skill Level	Components	Decision	Commitment
Novice	Context-free	Analytical	Detached
Advanced Beginner	Context-free and situational	Analytical	Detached
Competent	Context-free and situational	Analytical	Detached understanding And deciding; Involved in outcome
Proficient	Context-free and situational	Analytical	Involved understanding; Detached deciding
Expert	Context-free and situational	Intuitive	Involved

Note. Adapted from Dreyfus and Dreyfus (1986, p. 50).

On the novice end of the scale, the novice is following abstract rules with rigid adherence and lacks the judgment to apply nuance to decision making. On the expert end of the scale, the learner builds upon concrete experiences and applies adaptation, possibility, and vision to the decision making process (Lyon, 2015). While it is unlikely that a student teacher would report the freedom to apply visionary thinking while a guest in

another teacher's classroom, the Dreyfus model does offer a language and framework for mentors to adopt when reflecting upon the needs of the mentee. As Lyon (2015) argued, when the Dreyfus model is used intentionally during an internship, the students learn to reflect upon their own growth and learning as they transition through the stages of the scale. Student reflection allows for the opportunity to make adjustments more intuitively and smoothly, and the learner becomes more invested in the learning process (Lyon, 2015, p. 97).

As articulated in the Dreyfus model, this process of reflection is robustly supported by the constructs of situated learning theory as well. While the final goal is full membership in the community of practice, situated learning theory acknowledges the initial "explicit focus on the person" (Lave & Wenger, 1991, p. 52) that is necessarily individualistic in nature. Within the Dreyfus model, the learner's individualistic reflection is critical in order to move from novice to an involved and intuitive expert. Wenger's (2010) later research on organizational systems explored the idea of competence as defined by the community, including the negotiation that the community must engage when the learner brings in a new element of practice. Whether or not the learner's reflection advances the teacher candidate to "expert" status, the community of practice still has to accept the novice and determine the relative value of contribution.

Finally, considerations for equitable learning opportunities are another specific characteristic of an effective mentoring curriculum. Achinstein and Athanases (2005) argued that mentors need to help new teachers develop a bifocal perspective to critique the individual teacher's knowledge, skills, readiness, and resistance, and also what they call the "big picture" of diverse students in classes. They argued that mentors must

prepare candidates to build their political literacy and ability to influence organizational contexts in schools (Athanases et al., 2008, p. 746), which should, in turn, inform models of mentor development.

Search Criteria 4-Mentoring as Professional Development

The fourth item in criteria for the literature review was the inclusion of studies on professional development (PD) and induction of new teachers. Darling-Hammond (2013) argued that professional development should not be isolated from practice, but should support teachers in what they are already doing. Additionally, her 2013 study found that consistent and sustained professional development for teachers in the United States is rare, with most teachers reporting only one or two days focused on any one aspect of teaching. Rather, short workshops are the most common form of PD, with fewer than 20% of teachers working on subject-specific PD. This is particularly problematic if the subject to be developed is mentoring, as Darling-Hammond (2013) found that fewer than half of all professional teachers were involved in mentoring or coaching research of any kind (p. 101).

The prevalence of district-required PD demands attention when considering how mentors might approach their role. Any practicing teacher could likely identify several characteristics of effective PD that are aligned with Darling-Hammond's (2013) research. However, teachers do not equally value the content delivered across PD activities. Smylie (1989) surveyed 1,789 teachers and found that teachers perceived formal performance evaluation, consultation with building-level administrators, and in-service training planned by school districts to be the least effective approaches. In contrast, Smylie (1989) found teachers perceived activities such as direct experience in the classroom,

consultation with other teachers, observation of other teachers, and independent study and research as most effective.

Although there is considerable variation in the literature about the definition of mentoring and the substance of mentoring activity, Dawson (2014) proposed several design elements found across many research studies for describing mentoring. Some of these design elements correspond to characteristics of effective PD, as shown in Table 2.

Table 2

Correspondence between Design Elements in Mentoring and Characteristics of Effective PD

Design Elements in Mentoring	Characteristics of Effective PD
Duration and frequency of relationship, amount of contact	Duration and frequency of activity, sustainability and intensiveness
Aims or intentions sought as a result of participating in the model	Alignment between programs and teacher goals, communication of goals
Evaluating outcomes through observations, Feedback and reports	Application of new knowledge for demonstrating growth
Mentor designed resources, such as Reference manuals and instruments For peer observation	Active learning, such as conducting observations, and dependence on existing teacher knowledge
Process for matching mentees with Mentors	Selection of training format, such as in-service, coursework or mentoring
Strength of mentor and mentee Relationship	Collective participation by teachers in the same grade or school
Development of necessary knowledge And skills	Development of specific practices, such as peer observation or testing new Instructional techniques
Importance of technology to the relationship	Use of technology to support student learning

Note. Adapted from Dawson (2014), Desimone, Porter, Garet, Yoon, and Birman (2002), and Van den Bergh, Ros, and Beijaard (2014).

Both mentoring and PD emphasize duration and frequency of contact. Both rely on clearly communicated goals and focus on specific practices and processes for evaluating outcomes. Both depend on preexisting teacher knowledge as a starting place for training and future growth, along with opportunities for making choices. Both mentoring and PD depend on relationships and collective participation. This is important to note, because the literature on mentoring mostly addresses outcomes related to mentees (Iancu-Haddad & Oplatka, 2009). Examination of induction curriculum offers a specific example of professional development exclusively designed for mentor teachers.

NTC Induction Curriculum-Features, Materials, Resources and Artifacts

The New Teacher Center (NTC) is an organization that boasts decades of research and study in the development of its induction curriculum. Moir, Barlin, Gless, and Miles (2009) outlined key features, including how the NTC mentor curriculum “is informed by a number of insights, practices, and strategies related to professional learning. They include reflective practice, cognitive coaching, assessment for learning, job-embedded, inquiry-focused learning, brain theory, just-in-time learning, and Jungian operating and learning style” (p. 51).

As noted by Moir et al. (2009), understanding the specific needs and differences of adult learners must be a critical component of any mentoring curriculum. Recognizing that new teachers come to the profession as adults and with a set of experiences that mentors can build upon, Moir et al. (2009) argued that, “Adults learn while on the job and therefore are likely to be much more engaged learners when the new ideas or strategies are directly linked to their professional success” (p. 59). Therefore, the NTC approaches mentoring as one-part learning, and one-part teaching. Mentors are

encouraged to model curiosity, learn to inquire into their own mentoring practice, and use data to understand and articulate effective instruction. The following are key components of mentor practice, outlined in the NTC curriculum, that meet the bar outlined in Athanases et al.'s (2008) research: identify and strategically use entry points for learning, develop tools and protocols to support dialogue and formative assessment, and structure PD carefully through activities such as Mentor Academies, Mentor Forums, and Mentor Coaching.

One such example of a Mentor Academy is the Beginning Educator Support Team (BEST) training hosted by the Center for Strengthening the Teaching Profession (CSTP) in Washington State. This professional development program is grounded in the Washington State Teaching Criteria shown in Table 3 and is offered for qualified mentor teachers who wish to mentor novice teachers during induction. The BEST trainings use adult-learning curriculum such as Lipton and Wellman's (2003) *Mentoring Matters* and role-playing opportunities for mentor teachers to practice having learning-focused conversations, offering feedback on instruction and classroom management, and tools for navigating difficult conversations.

After reviewing the broad research on mentoring, professional development, and induction, three empirical studies were analyzed for depth and alignment to the present study. The following studies show sufficient similarities to the research goals of the present study and were included for comparative analysis.

Table 3

Washington State Criteria for Teaching

1. Expectations: The teacher communicates high expectations for student learning.
2. Instruction: The teacher uses research-based instructional practices to meet the needs of all students.
3. Differentiation: The teacher acquires and uses specific knowledge about students' cultural, individual intellectual and social development and uses that knowledge to adjust their practice by employing strategies that advance student learning.
4. Content Knowledge: The teacher uses content area knowledge, learning standards, appropriate pedagogy and resources to design and deliver curricula and instruction to impact student learning.
5. Learning Environment: The teacher fosters and manages a safe and inclusive learning environment that takes into account: physical, emotional and intellectual well-being.
6. Assessment: The teacher uses multiple data elements (both formative and summative) to plan, inform and adjust instruction and evaluate student learning.
7. Families and Community: The teacher communicates and collaborates with students, families and all educational stakeholders in an ethical and professional manner to promote student learning.
8. Professional Practice: The teacher participates collaboratively in the educational community to improve instruction, advance the knowledge and practice of teaching as a profession, and ultimately impact student learning.

Note. Table adapted from the Teacher Principal Evaluation Program adopted in 2010.

Selected Studies

These studies met the first three items in the search criteria: 1) studies that reveal the importance of mentor teachers upon teacher development, 2) studies that reveal how universities select, train, and support mentor teachers during clinical field experiences, and 3) studies that compare the impact of well-trained mentors with poorly-trained mentors. This first study was published in 2000 and does not include work with pre-service teachers and mentors. However, it was the only experimental study that compared the impact of well-trained mentor teachers with poorly-trained mentor teachers (search criteria 3).

Evertson and Smithey (2000). Evertson and Smithey (2000) conducted a quasi-experimental field study with forty-six mentor-protégé pairs in two schools in a mid-western state. Their research questions focused on whether mentor teachers who developed specific knowledge and skills about how to assist new teachers with classroom management, lesson planning, and goal setting would measurably influence beginning teachers' assumption of these skills in their first three months of teaching. The theoretical framework appeared to be derived from social learning theories that specify how mentoring programs must be learner-centered in order to produce innovative practice. As indicated in the brief literature review, conceptually oriented, learner-centered mentoring programs have not been subjected to rigorous empirical research and scrutiny (Evertson & Smithey, 2000, p. 294). The study included a control group and a treatment group of mentors only, with data collection compiled through ratings and narrative records, classroom observations, weekly summaries of mentoring activities, and ratings of students' classroom behaviors. While all 46 protégés participated in identical three-day workshops and all 46 mentors participated in a one-day orientation at the district level, 23 of the mentors were in the treatment group that participated in an additional four-day workshop. The content of this workshop is shown in Table 4 and includes discussion on the role of mentoring, needs of the student teacher, developing mentoring skills to promote learning, understanding the development of an adult learner, and developing action plans.

Table 4

Content Model for Mentor Workshops

I.	Mentoring and the Mentoring
	What is mentoring and who is a mentor?
	<ul style="list-style-type: none"> • Roles and Responsibilities of Mentors • Characteristics of Effective Mentors • Functions of Mentoring • Nature of Dialogical Relationships • Payoffs and Pitfalls of Mentoring
II.	Assisting the Beginning Teacher
	<ul style="list-style-type: none"> • Characteristics of Beginning Teachers • Stages of Teacher Development • Needs of Beginning Teachers • Concerns of New Teachers
III.	Helping Beginning Teachers with Critical Tasks of Teaching (e.g., Classroom Management and Instructional Planning, Teaching Content, Engaging and Motivating Students, et.)
	Basic Principles
	<ul style="list-style-type: none"> • Classroom Management
	-Arranging the Classroom Setting
	-Planning and Teaching Rules and Procedures
	-Managing Student Work
	-Establishing A Positive Classroom Climate
	-Supporting Good Student Behavior
	-Conducting Instruction and Maintaining the Momentum
	-Getting the Year Off to a Good Start
	<ul style="list-style-type: none"> • Planning for Instruction
IV.	The Process of Mentoring
	<ul style="list-style-type: none"> • Mentoring vs. Evaluating • Knowing the Characteristics of the Adult Learner • Practicing Empathic Communication Skills • Conducting Formal Observations
	Leading Novices to Construct Teaching Knowledge: Using Reflective Discovery
V.	Developing Action Plans
	<ul style="list-style-type: none"> • Setting Goals and Plans • The Art of Letting Go

Note. The table was adapted from the following reference: Evertson, C. M., & Smithey, M. W. (1996). *Mentor Handbook: An Introduction to Mentoring* (3rd ed.). Nashville, TN: Peabody College, Vanderbilt University.

This initial workshop and monthly follow-up sessions during the year were conducted by teacher education faculty members from two universities. Assignment of groups appears to constitute a convenience sample, due to the fact that study participants were volunteers with scheduling demands and availability. All 46 mentors were teachers with four or more years of experience, and the researchers analyzed the two groups' prior knowledge regarding mentoring and determined no salient differences between the two groups. Data collection was extensive and included training for observers to eliminate bias and error. For example, trained classroom observers reached a reported 83% inter-rater reliability score (Evertson & Smithey, 2000) and used research-based observation tools and protocols such as the Classroom Activity Record (Evertson & Burry, 1989). Reviews of video-taped observations and mentor-protégé conferences reached a criterion agreement of 83% to 87% on all observable measures using observers' codes and descriptions against a correctly coded criterion videotape (Evertson & Smithey, 2000, p. 298). These videotapes were analyzed using a 5-point Likert-type scale.

While the researchers did caution against generalizability due to sample selection and size, the results indicated that protégés of mentors who participated in the treatment group mentoring activities were more successful at the beginning of the year. These protégés were more successful in motivating students, managing instruction, managing behavior, and establishing and maintaining procedures as measured by the Classroom Activity Record (Evertson & Smithey, 2000). Additionally, treatment group protégés were better able to provide reflective rationales for lessons and concepts, depth to assessment of student understanding, and evidence of awareness of student needs. Interestingly, Evertson and Smithey (2000) noted that, "about half of the protégés in the

comparison groups struggled with student behavior and organizational issues throughout the first semester” (p. 303) and that their mentors appeared to lack the strategies to support them beyond providing encouragement.

The design of this study did not address how mentors should be trained to support their candidates in the social-emotional and socio-cultural needs of their protégés, nor did it explore the specific benefits to the mentors themselves that resulted from the practice of mentoring.

Henning, Erb, Randles, Fults, and Webb (2016).

Henning et al. (2016) conducted a study with five teacher education programs in Southeastern Ohio as a direct response to NCATE’s (2010) Blue Ribbon Report, which called for major reforms in the conceptualization of “practice” in teacher education. All programs implemented several changes, including increased candidate selectivity, school/university partnerships, and data-based curriculum revisions. Henning et al.’s (2016) guiding purpose was to explore how to move their programs to implement “clinically based teacher education” (p. 24). As such, all five programs worked together to develop a conceptual tool that would center the clinical experience at the heart of the teacher education program.

Henning et al. (2016) described “clinically based teacher education” as a move away from the traditional theory-to-practice model, which pushes teacher candidates to apply learning from coursework into practice in field settings, often without intentional support. The clinically based model situates the coursework within the fieldwork, with a robust level of support for reflection and knowledge integration. Among others, Henning et al. used Korthagen’s (2010) three-tiered model of teacher learning as a theoretical basis

for their study. The model described how “experiences coalesce into gestalts” (p. 25) at each level that can be developed into schemas, and eventually into personal theories and ideas based upon reflection and application.

Because Henning et al. (2016) did not set out to design an experimental or quasi-experimental study in order to make causal claims, their goal was to describe the “process” and “product” of their clinical curriculum rather than the method, sampling procedures, validity and reliability studies. They presented their curriculum in order to offer insight to similar institutions wishing to implement reform in their field-based teacher education programs.

While all five teacher education programs in the study were in the same general geographical area, they varied in size, partnership arrangements, and student demographics. One was a very large public university with 1,200 teacher candidates, while a small regional state university served only 50 students. The remaining institutions included two independent universities and a community college. Administrators from each of the institutions met and shared respective documents, procedures, and initiatives. Due to the challenges of synthesizing coursework across institutions, the resulting clinical curriculum was developed independent from the course sequence in any program. The four design principals of the curriculum included:

- 1) Standards-based
- 2) Organized in a developmental sequence
- 3) Simple and easily communicable
- 4) Stated in language universally familiar to practitioners.

(Henning et al., 2016, p. 29)

Henning et al. (2016) described the iterative, collaborative and ultimately successful process of developing the curriculum, which resulted in shared ownership and vision for clinically-based teacher education. The working curriculum was presented at state conferences for feedback. The resulting curriculum, entitled “Developmental Curriculum for Clinical Experiences” (Henning et al., 2016, p. 29) was presented in two easy-to-read tables that were easily transferable to any program in Ohio, as they were based on the seven state standards including: 1) Students, 2) Content Knowledge, 3) Assessment, 4) Instruction, 5) Learning Environment, 6) Communications, and 7) Professional Development. While the tables can be used as a tool with mentor teachers for training and support, they were clearly directed towards pre-service students. For example, Standard 4 required students to “create and implement a single lesson plan. Assume leadership of the class for short periods of time. Create and lead classroom activities” (Henning et al., 2016, p. 31).

The authors noted that corresponding mentoring strategies have been developed, but the curricular emphasis on the pre-service teacher increases the risk that the actual emphasis will become the skills, classroom management, and routines necessary to “pass” student teaching (Feiman-Nemser, 2001 Valencia et al., 2011; Zeichner, 2010).

Graham (2006).

Graham (2006) conducted a study to learn from mentor teachers regarding their perceptions of the necessary components of a successful teacher education field experience. Graham (2006) suggested that a lack of coherence, quality, and consistency between placement sites made for a fragmented program overall (p. 1118). This study is notable because most research on pre-service teaching programs focuses on the

perceptions of the teacher candidate, the university faculty, or on results of pre-service preparation as measured by success during induction. This qualitative research study focused exclusively on the perceptions of the mentor teacher. As Graham (2006) noted, the key contribution was allowing the mentor teachers to describe their contributions to the success of the internship experiences, in their own words (p. 1119).

Graham's (2006) study seemed to lack a succinct theoretical framework, though it was guided by the "author's particular assumptions about the importance of teacher education in educational reform and the role of the practicum within teacher education" (p. 1119). Two of Graham's (2006) five research questions aligned with the present study: 1) How do cooperating teachers define successful internships? and 2) What supports are needed to improve the experience for all participants? (p. 1120).

Graham (2006) collected data by administering a survey to 95 mentors, and then conducting 25 semi-structured interviews with volunteers who responded to the survey. Graham (2006) reported homogeneity within the group, as well as previous relationships with the researcher through previous collaboration in the teacher education program. Graham (2006) asked eight questions in a formal process, including:

1. In reference to being a successful cooperating teacher, how would you define the term "success?"
2. What do you think makes an internship successful?
3. In your role as a cooperating teacher, what do you think are your strongest attributes?
4. Are there areas you would like to improve?
5. What kinds of things would help other teachers become successful

cooperating teachers?

6. How can the university assist you in your role?
7. What is the role of the cooperating teacher?
8. How can the internship become a stronger element in teacher preparation?

(p. 1121)

Graham's (2006) questions allowed mentor teachers to describe their own experiences and what had supported or hindered their professional growth. Data analysis included collaboration with two graduate assistants to transcribe the structured interview transcripts that were collected in single 45-90 minute interviews with the participant volunteers. They used HyperRESEARCH 2.0 to "manipulate the data" (Graham, 2006, p. 1122) so that it could be categorized into themes. While several of the themes matched Graham's (2006) broad research questions that do not align to the present study, some key findings were closely relevant. For example, Graham (2006) reported that one category "Professional Mentoring" had the potential to "transform field placements from the apprenticeship model to the laboratory model" (Graham, 2006, p. 1122; Dewey, 1904).

Within the category of professional mentoring, I distinguish between two perspectives-that of the maestro and that of the mentor-and suggest that while maestros are excellent teachers who provide models of practice, mentors incorporate the role of teacher educator into their vision of cooperating teacher. Mentors consciously and carefully structure the clinical experience to nurture the professional growth and development of the intern. (Graham, 2006, p. 1122)

Not surprisingly, another finding was that this shift from maestro to mentor was

supported by extensive collaboration and partnership between the school partners and the university teacher education program. During the study, Graham (2006) developed communication tools and resources for shared understanding of policy such as candidate evaluation and program timelines. Eventually this became a “practicum curriculum” (Graham, 2006, p. 1122). Graham’s (2006) study was so successful for both the school district partner and the university teacher education program, that after two years a Professional Development School was established.

The distinction between the maestro and the mentor demands further examination and is summarized in Table 5.

Table 5

Characteristics of the Two Perspectives of Mentor Teachers

<u>Maestro</u>	<u>Mentor</u>
Dominate the classroom by providing a strong model	View teaching as a shared multidimensional experience
Provide feedback to improve technical and managerial skills of teaching	Feedback is dialogic
Encourage intern to copy effective strategies	Assist interns in interpreting and analyzing classroom events
Focus on lesson planning with emphasis on content knowledge and coverage	Approach teaching as an intellectual endeavor that requires dialogue and development

Note. Adapted from Graham (2006).

It is important to note that the table reflects Graham’s (2006) clear bias towards the practices defined in the “mentor” column. The simplified language that characterizes the maestro, including “dominate” and “copy” (Graham, 2006, p. 1126) are the researcher’s. She argued that the maestros loved teaching and wanted their interns to love to teach as well, just as the mentors did. It is unlikely that any one person would exemplify all of the practices of the mentor. However, the characteristics presented in

Table 5 offer a useful framework for mentors to examine their own behaviors and orientation towards their practice.

Discussion

The first research question of the present study explores the characteristics of an effective mentoring development program, which necessitates a curriculum for implementation. However, as shown in the previous three studies (Evertson & Smithey, 2000; Graham, 2006; Henning et al., 2016) there is little curriculum specifically designed for pre-service mentor teachers in a university program. Further, there is no available curriculum that considers the research presented thus far on the relationship between mentoring and PD and some of the dilemmas of mentoring itself.

The Evertson and Smithey (2000) conclusions demonstrate a statistically significant impact from effective mentor development. Their published curriculum is a useful contribution to the research on mentoring and mentoring development. These are two compelling links to the present study. However, Evertson and Smithey's (2000) study is conducted with mentors of novice teachers during induction, rather than mentors of pre-service teachers. Certainly, the specific needs of a pre-service mentor differ due to contextual realities. A student teacher shares the mentor's classroom, with close relational contact every day. The mentor also acts as an evaluator during pre-service education, while during induction the mentor's role is exclusively supportive in nature. The present study can fill this gap by building on the possibilities for collaboration that occur during student teaching. Such collaboration can transform teaching and learning (Jenkinson & Benson, 2016), especially when paired with effective mentor development designed exclusively for pre-service mentor teachers.

At first glance, the curriculum developed by a statewide network of teacher educators (Henning et al., 2016) is perhaps the closest match to the aims of the present study. In an article published during the development of the curriculum, the authors Henning et al. (2015) stated

Various studies have suggested that a carefully designed mentoring program can increase the effectiveness of mentors by: first, supporting communication between university faculty and public school teachers; second, helping mentor teachers develop the skills to work with preservice teachers; and third, helping mentor teachers in other aspects of their everyday practice; for example, in collaborative coaching with their peers. (p. 145)

This certainly echoes the findings stated early in this chapter, which are drawn largely from ex post facto data and demonstrate that mentors do, indeed, desire clear communication from the university as well as practical training in the skills necessary for effective mentoring. However, the final curriculum published by Henning et al. (2016) is much more broad, expanding beyond the emphasis on mentor teachers and their experience with the curriculum. The curriculum design evolved to serve as a tool for statewide coherence across multiple university programs. Nevertheless, the study does closely match the first and second search criteria: 1) studies that reveal the importance of mentor teachers upon student teacher development, and 2) studies that reveal how universities select, train, and support mentor teachers during clinical field experiences.

Finally, Graham's (2006) study is a close match to the qualitative design and methodology used in the present study. Graham (2006) allowed teachers to speak into their own experiences with perceptions of mentoring, and then drew distinctions based on

these perceptions. Two of Graham's (2006) five research questions closely align with the present study. The other three do not, as they are aimed at understanding what other factors make a mentor successful, such as prior mentoring experience. Graham's (2006) study also aimed to learn what mentors knew and believed about effective teacher education in general, not just about their role as mentors. In addition to similarities with the method, Graham's (2006) research itself served as a framework for the final professional development session with the mentor teachers. For example, the conceptualization of the "mentor and the maestro" (see Table 5) was used as a tool for self-reflection and development in the final training session. Mentor experiences with this material will be discussed in Chapters four and five.

This comprehensive literature review surfaced myriad questions and resources that contributed to the exploration of the research questions presented in Chapter one. The broad research on mentoring, professional development, and induction all offered insight into considerations for developing an effective mentoring program, while similarities and gaps discussed in each of the three studies presented a way forward to Chapters three, four, and five.

Chapter 3: Methodology

This study employed a two-dimensional mixed methods sequential bracketed design (see Greene, Caracelli, & Graham, 1989; Onwuegbuzie & Collins, 2007) which included both qualitative and quantitative data collection in three phases: qualitative → quantitative → qualitative, as seen in Figure 1.

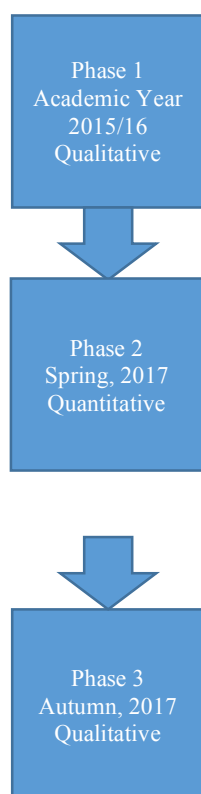


Figure 1. Sequential mixed-methods design.

One reason for selecting this method was access to rich archival data that could inform a new curriculum for mentor professional development. The quantitative data allowed the investigator to distinguish and then refine topics in order to identify characteristics of an effective mentoring program. According to Fowler (2009), the statistical data from survey research can be used to describe important aspects of the

study population, while the bracketed qualitative elements of the design allowed the researcher to extract and describe common meaning for several individuals in their lived experience of mentoring (Creswell, 2013).

Onwuegbuzie and Collins (2007) argued that a two-dimensional mixed methods sampling model provides flexibility to studies with more than two collection phases. In this study, the sequential nature of the design was an important component because each phase built upon the next. Further, the qualitative data in phases 1 and 3 served as brackets (Greene et al., 1989) to the quantitative data in phase 1. Sandelowski (2003) referred to this method as a “sandwich” (p. 336) design.

Mixed-methods design has become increasingly popular in educational research (Biesta, 2012) due to its comprehensive nature. Biesta (2012) argued that such research allows for a more “accurate and adequate understanding of social phenomena” (p. 147) than possible with a single approach. Biesta (2012) and Creswell (2013) charged the mixed methods researcher to be driven by aims of the research questions and a pragmatic orientation, rather than loyalty to one method. Interestingly, epistemological questions are the basis of much debate regarding mixed methods research (Biesta, 2012). Researchers dispute how different purposes and methods can be combined in order to define knowledge. For this reason, a mixed methods study by Harlow and Cobb (2014) served as a guide for the present study’s design and implementation.

Harlow and Cobb (2014) examined how pre-service teachers perceived a revised teacher education program that emphasized school and university partnerships. In particular, the researchers explored the impact of program revision upon teacher identity development during the first year of teaching. Harlow and Cobb’s (2014) theoretical

approach is a close match to the present study, noting especially the “central premise of learning resulting from social participation” (p. 73) and shared meaning-making within a community of practice. As Harlow and Cobb (2014) noted, a mixed methods design is appropriate for a study that is collaborative in nature. For example, the quantitative data provides statistical analysis, which allowed the researchers to identify emerging patterns later used to support the coding of qualitative data.

Similar to Harlow and Cobb (2014), the qualitative data in phase 1 was used to develop the survey in phase 2. Data in phase 1 were gathered after 108 mentors participated in four, 1.5 hour PD activities. Items asked general questions such as what worked well, what was most helpful, what would you like to learn more about, and what could be improved (see Appendix A1 for a sample of exit cards and responses). Emerging patterns in the qualitative data informed survey development in phase 2. The survey of 85 mentor teachers contained objective items aligned with topics found in the qualitative data from phase 1. The survey asked mentors to rank subjects for PD that were important for working effectively with student teachers (see Appendix B).

Participation and Sampling

Sampling procedures in this study were complex due to the multiple phases and changing participants in each phase. This section outlines the sampling scheme, relationship of samples in each phase, and the sample size (Onwuegbuzie & Collins, 2007). Greene, Caracelli, and Graham (1989) argued that such considerations are necessary to prevent bias and sampling error with multiple samples and phases of data collection.

Mentors in this study worked with both undergraduate and graduate pre-service teachers in a university-based program across a variety of grade levels and subject areas. Demographic data such as gender, age, and years of teaching experience were collected from survey participants in phase 2. Based upon these data only, the characteristics of participating mentors were representative of teachers across the United States (U.S. Department of Education, 2016). Mentors were selected based upon criteria required by the state (adapted from Washington Administrative Code 181-78A-264), as follows:

- Minimum of three years teaching experience
- Washington state teaching certification
- Approval of building-level administration
- Approval of district human resources (in most districts)

Mentors were encouraged to attend face-to-face training and to view online resources developed for effective mentoring. Mentors received small stipends, depending on the duration of the program, and professional clock hours. These clock hours were offered for free, provided mentors showed evidence of successful self-assessments of online materials.

The total sample size from all data sources was $n = 199$. As previously noted, qualitative data in phase 1 were collected from 108 mentor teachers from two cohorts over a 17-month period (Winter 2015 to Summer 2016). Participant responses were anonymous. In phase 2, quantitative data were collected from 85 mentor teachers in end-of-program surveys. Some of the survey respondents attended sessions in phase 1; however, participant names and responses could not be correlated. In phase 3, seven volunteer mentors chose to participate in a small group for intensive PD in mentoring.

The invitation was made in person to all mentor teachers who attended the initial training in August 2017, and again via electronic correspondence after school began in September. The initial invitation was open to all mentors and offered a stipend of \$100 to the first 15 mentors who could commit to participation at all events. While 13 mentor teachers initially responded, only seven mentors attended the first intensive session and the other six teachers declined due to scheduling conflicts. After the first intensive session, one mentor teacher's mentee moved to another building, making the final intensive group in phase 3 a sample of six. Coincidentally, the convenience sample of six in phase 3 represented mentors from each teacher education program at the university, as shown in Table 6.

Table 6

Phase 3 Representation of Mentors by Teacher Education Program

Mentor 1	Undergraduate Program
Mentor 2	Alternative Routes to Certification for School Employees Program
Mentor 3	Accelerated Master of Teaching Math and Science Program
Mentor 4	Accelerated Master of Arts in Teaching Program
Mentor 5	Accelerated Master of Arts in Teaching Program
Mentor 6	Master of Arts in Teaching Program

Procedures

Table 7 summarizes the multiple data sets and three phases of data collection. Surveys, exit card questions, email correspondence, and field notes are all shown in

Appendices A-C.

Table 7

Summary of Data Sources

	<u>Quantitative Data</u>	<u>Qualitative Data</u>
Phase 1	None	Exit cards from mentor events Winter 2015 to Summer 2016 2/24/2015, 8/20/2015, 11/4/2015, 8/23/2016
Phase 1	Likert-scaled survey	Open ended survey questions May-June 2016
Phase 3	None	Exit cards from mentor events 10/5/2017 & 12/7/2017 Email correspondence with investigator Investigator field notes

Exit card data were collected at each mentor event for phases 1 and 3. The researcher attempted to promote participation by allowing for extra time to complete the feedback. After noticing that some participants left early, minor adjustments were made to increase participation at future events. For example, at one event in phase 1, the two mentor cohorts were split into groups at the break. One group was comprised of ongoing mentors from year-long programs, and another group represented mentors in a different program who needed orientation for their new interns. Exit cards were completed during this time while participants were still engaged, however only 50% of the mentors turned in the cards. The next time, the exit cards were placed in participants' packets at the beginning of the event and a box for submission was located by the door. This increased submission rates, but the group was smaller and was easier to manage overall. In sum, response rates of exit cards were idiosyncratic. Aside from the August, 2016 orientation,

participants had been teaching all day, they fought traffic to come to a PD session, and sometimes just did not feel like writing at the end of a long day.

The survey in phase 2 was sent to 176 mentor teachers in both undergraduate and graduate programs and there was a response rate of 49%. The survey consisted of 30 questions, including a mixture of Likert-scaled items and open-response questions. The Likert-scaled items were designed to assess mentor beliefs about effective mentor PD. Only 16 of the 30 items directly related to the research questions for this study (see Appendix B). The three open-ended questions asked mentors what more they would like to share about effective mentor development, what more they would like to share about preparing new teachers, and whether they would like to be more involved in pre-service teacher development. Item development, validity, and reliability will be discussed in a subsequent section.

The investigator sent follow-up correspondence to the participants in phase 3, one week after the first event (see Appendix C2). This correspondence thanked participants for attending, attached a resource used for “homework” (see Appendix D3), and invited participants to correspond with questions or feedback. The only response was from the mentor who later dropped out of the group due to a change in placement. Her questions were programmatic in nature, such as inquiring how much time she should require her teacher candidate to spend at school. Approximately one month after the first event, the investigator sent another email to the participant group, now reduced to six. The email (see Appendix C2) reminded participants of the researcher’s availability as a resource, sent the Teacher Survey and “homework” reminder one more time, and also reminded participants of the final session. Finally, the investigator sent email correspondence to all

six participants one week after the second event. This email contained a discourse tool that was discussed during the event and a general note of appreciation.

Instrumentation, Reliability, and Validity

Both the quantitative and qualitative data in a mixed-methods study must be considered for reliability and validity (Creswell, 2015). First, the design of the mentor teacher survey was analyzed for reliability. Principles of effective survey research guided the development of the questions (Arthur, Waring, Coe, & Hedges, 2012; Creswell, 2015; Fowler, 2009; Gall, Gall, & Borg, 2007; Vogt & Johnson, 2016). Errors in survey research may occur for many reasons, including participant misunderstanding of the questions, lack of information for complete answers, and the researcher's desire to present the research in a certain way. These errors impact survey data validity, which is most easily understood as the truth of the measure (Fowler, 2009). Ultimately, it is the investigator's job to evaluate the questions and determine that they are well understood and meaningful. As such, the survey questions were developed from multiple sources.

The items for improving professional development for mentor teachers were devised from the qualitative analysis of exit slips from mentor events on 2/24/15, 8/20/2015, 11/4/2015, and 8/23/2016 in phase 1. Responses were recorded on an Excel spreadsheet producing 197 row entries, which were grouped by date according to when the development session occurred. Each row was identified with one of 40 codes, such as candidate expectations and collaboration with mentors. The codes with the highest frequency were used to develop questions regarding desired topics for PD in the Phase 2 survey.

Reliability of survey questions was also enhanced through consistency in

comparable situations (Fowler, 2009). In order to measure such consistency, the questions from the survey in Phase 2 were compared with questions and responses from earlier surveys deployed in 2015 and 2016. These surveys measured perceptions of growth from mentoring, or mentoring as PD. This evolved into the current study's research goals. Items in this survey were derived from the instruments developed for research on teacher preparation and professional development (Haslam, 2010; Parsad, Lewis, & Farris, 2001) and the Teaching and Learning International Survey (OECD 2008).

Although this study was not designed to make causal claims, the Cronbach's alpha reliability procedure in SPSS was conducted to strengthen reliability of the survey used in Phase 2. According to Gall, Gall, and Borg (2007), Cronbach's alpha scores above .7 are generally considered the best measure for internal consistency in instruments with a range of possible answers. The Cronbach's alpha for the instrument used in Phase 2 was .839 (see Appendix C1). Together, the items informed through analysis of exit cards, previously published reliable instruments, and the results of the Cronbach's alpha reliability procedure produced a valid measure of quantitative data.

The multiple sources of qualitative data were also vetted for reliability and validity. Creswell (2013) argued that validity in qualitative research means understanding one's topic as well as understandings derived from other sources. Both must be documented in the written study. Therefore, the investigator followed the guidance of prominent thinkers in teacher education, summarized in the literature review, and prominent researchers in qualitative research methods (Biesta, 2012; Creswell, 2013; Creswell, 2015; Richards & Morse, 2007). Exit card questions were grounded in the

research questions and evolving themes and patterns. For example, the questions on all exit cards were designed to promote detailed mentor feedback about their experiences with PD. The questions were often broad, such as, “What worked well for you?” and always offered opportunities for suggestions.

Other considerations for validity of qualitative data include the procedures of triangulation and bracketing (Creswell, 2013; Creswell, 2015; Richards & Morse, 2007; Sandelowski, 2003). Richards and Morse (2007) and Sandelowski (2003) argued that “triangulation” is perhaps the most misused term in qualitative research, but can be an effective strategy for reliability with sufficient rationale. Therefore, triangulation in this study was used as a strategy to gain multiple perspectives on the topic of mentor development. Sandelowski (2003) further suggested that the investigator’s best hope for reliability with qualitative data lies in effective research design and implementation. In this study, the sequential design was an important form of triangulation because the exit card data informed the item development of the survey, and the resulting PD was then measured by more exit card data. Additionally, exit card data were coded by the primary researcher and a peer using inter-coder agreement strategies for reliability. These strategies promoted stability in the coding process (Creswell, 2013) and allowed for facilitation of describable themes.

The term “bracketing” was employed in two ways in this study. In addition to the “bracket” of qualitative data in the research design, “bracketing” was an important form of validity. Qualitative researchers use bracketing to limit bias by describing the researcher’s relationship to the research (Creswell, 2013; Creswell, 2015; Richards & Morse, 2007). In this case, the investigator was the facilitator of all PD and the primary

designer of online resources for mentors. Bracketing limited bias in the interpretation of the data, and also compelled the investigator to guard against the desire to match findings to previously held notions.

Ethical Considerations

An Internal Review Board (IRB) from Seattle Pacific University reviewed the research purpose, design, data collection, and sampling procedures. The project was approved under exempt review number 171806008 on December 5, 2017 (see Appendix F1). The data from Phases 1 and 2 were ex post facto and followed Fowler's (2009) guidance regarding human subjects and ex post facto data. As outlined in the Informed Consent document (see Appendix F2), the six final participants in phase 3 all consented to the inclusion of their exit cards and email correspondence in the written results of the study. Participants were assured that their narrative responses would not be identifiable, and that any follow up participation would be voluntary.

The investigator communicated minimal risk to the mentors participating in the study and articulated no direct benefits as a result of participation. IRB consent was not connected to the \$100 stipend offered to all mentor teachers for participation in the PD series. To further ensure ethical behavior, the stipend was processed prior to seeking consent forms.

Summary

The design and methodology of this study evolved in multiple ways from its inception. The original intent was to present a curriculum for effective mentor teacher development, much like Henning et al. (2016) and their curriculum for field experiences. Indeed, a curriculum was developed for the intensive PD in the third phase of the study.

The materials, agendas, and resources of the curriculum are featured in the Appendices and described in the results. However, as the right design emerged, so did a more robust response to the research questions. Rather than simply presenting an effective curriculum for mentoring, the “sandwich” design (Sandelowski, 2003) offered a way to gather, summarize, and present the mentor-participant voices. In the end, the two-dimensional mixed methods sequential bracketed design (Greene et al., 1989) provided a methodological roadmap to understand the features that both developed and constrained mentor experiences with the PD.

Chapter 4: Results

As discussed in Chapter one, the research questions were drawn in part from early analysis of the ex post facto data collected in phases 1 and 2. Both the qualitative and quantitative data showed that when articulating their needs for professional development on mentoring, pre-service mentor teachers expected certain characteristics including flexibility and resources, effective presentation of material, and collaboration with other mentors. The research questions sought to explore exactly how a mentoring curriculum for professional development (PD) could meet these expectations. Data from phase 3 provided important confirmation of the early findings through targeted exit cards from PD sessions, email correspondence with the investigator, and investigator field notes. Accordingly, results from the first research question, *What are the characteristics of an effective pre-service mentoring development program?*, utilized data from all three phases. Research Question 2, *What features of the curriculum further developed or constrained each mentor's reported experience?*, was best answered through analysis of the qualitative data in phase 3.

Sandelowski (2003) encouraged the mixed-methods investigator to present findings by deciding the best way to represent the analytical and interpretive relationships together. Further, the mixed-methods investigator must decide how the combination of visual displays and narrative description can help to bring “order to chaos” (Sandelowski, 2003, p. 337). This is necessary when using a methodology with multiple collections and differing forms of data. Creswell (2015) similarly concluded that the results in a sequential design structure must report findings in a similarly sequential order. Consequently, findings for this chapter will be presented with a combination of visual

display and narrative description, in sequential order of data collection from phases 1, 2, and 3.

Results from Phase 1

Coding results from the qualitative data in phase 1 are shown in Table 8. Due to multiple optional items to provide feedback on each exit card, there were 159 responses from a total of 108 mentors who participated in four professional development sessions (PDs). These coded topics represent the theme that *mentors reported clear preferences for PD topics*.

Table 8

Example Set of Topics Coded From Mentor Feedback After PD Activities

	Number of codes applied
Instruction on co-teaching model	20
Handout resources	13
Easily accessed resources	11
Getting questions answered	10
Student teaching progression	10
Collaboration	10
Handouts on co-teaching	6
Internship-based assessment	6
Overview and schedule	6
Paperwork	6
<i>n</i> = 159	

Exit cards asked mentors for general feedback, such as “What worked well about this evening?” or “What sections were of the most value to you in your work as a mentor?” Table 8 shows that mentors explicitly reported on specific topics of the PD, such as 20 comments regarding co-teaching. For example, “Hearing various methods of co-teaching and what other teachers thought about co-teaching; how they are implementing into their classrooms” from 2/24/15, and “Clarification on co-teaching vs.

taking turns” from 11/4/2015. There were also broad comments about general features of the PD, such as “Everything [worked well]. Without this meeting I would have been all over the place. Great resources and information to guide us.”

Coding from the exit cards in phase 1 also revealed the theme that *mentors expected skillful presentation*. Comments were both complimentary and constructive. For example, one mentor from 8/20/15 wrote, “Collect mentor teacher questions at the start to guide presentation” while another stated that the presenter should have offered, “More direction in the Think-Pair-Share activities.” A mentor from the 11/4/2015 event stated, “Would have liked to hear more voices: don’t wait for volunteers, ask us.” Others praised the organization, delivery, and tone of the presentation at each event.

Results from Phase 2

As previously discussed, the two-dimensional mixed methods sequential research design drew on results from phase 1 to develop a survey for phase 2. The quantitative survey “Improving PD for Mentors” described in Chapter three, was sent to 176 mentor teachers and received 85 responses, for a response rate of 49%. The survey contained 30 items total (shown in Appendix B) but only 16 items directly aligned with the research questions in this study. Descriptive statistics results from the 16 Likert-scaled items are shown in Table 9 and reflect percentages for each item. These items provided the investigator with descriptive statistics regarding mentors’ preferences for PD topics and directly informed the curriculum development in phase 3. Survey results for the non-Likert-scaled items are not included in this data set.

The survey results showed that the four most important areas for PD (from highest to lowest) were being direct in communication with student teachers, reviewing

expectations for student teachers, understanding the needs of student teachers, and establishing a schedule for collaboration between mentor and mentee. Resources for problem solving with candidates, guidelines for productive conflict, and guidelines for feedback were moderately important to mentors. In this quantitative data set, both learning from exemplary mentors and collaboration with other experienced mentors showed moderate to neutral importance, which contradicted strong preferences articulated in both phases of qualitative data. This suggested that mentors who chose to fill out the survey might value the face-to-face PD less than mentors who chose to come to a PD session on campus. Another contradictory data point is the moderate to neutral importance placed on instruction on co-teaching, and applying a protocol to promote collaboration between mentor and mentee. As seen in Table 8, this topic received the most importance in the qualitative coding from PD events in phase 1. Again, perhaps mentors who filled out the survey but did not attend the PD sessions valued the collaborative nature of co-teaching less than mentors who attended the trainings. Another explanation could be that both “co-teaching” and “a protocol to promote collaboration” imply a structured model for collaboration, and some mentors might value collaboration but resist a model requiring structure. This would explain the high value placed on establishing a schedule for collaboration.

Table 9

Percent Response to “Which of These Areas Is Important for Learning to Work More Effectively With Student Teachers?”

	1 Not at all important	2 Slightly important	3 Neutral	4 Moderately important	5 Extremely important
Resources for problem solving with candidates	0.00	3.53	10.59	56.47	29.41
Guidelines for feedback	0.00	2.35	7.06	47.06	43.53
Learning from exemplary mentors	2.38	5.95	22.62	32.14	36.90
Guidelines for productive conflict	0.00	3.57	22.62	54.76	19.05
Being direct in communication with student teachers	0.00	0.00	9.41	23.53	67.06
Establishing a schedule for collaboration between mentor and mentee	0.00	4.71	3.53	37.65	54.12
Applying a protocol to promote collaboration between mentor and mentee	2.35	4.71	17.65	43.53	31.76
Collaboration with other experienced mentors	3.53	5.88	30.59	42.35	17.65
Collaboration with field supervisors	2.35	1.18	16.47	38.82	41.18
Instruction on the co-teaching model	1.18	7.06	23.53	43.53	24.71
Instruction on internship-based assessments	0.00	16.47	25.88	36.47	21.18
Understanding the needs of student teachers	0.00	1.19	9.52	34.52	54.76
Sequencing experiences for an effective student teaching progression	0.00	3.53	15.29	36.47	44.71
Reviewing expectations for student teachers	0.00	2.38	8.33	33.33	55.95
Reviewing expectations for mentor teachers	0.00	2.41	10.84	37.35	49.40
edTPA	6.17	6.17	43.21	29.63	14.81

n = 85

Results from Phase 3

Following the sequential order of the bracketed design (see Greene et al., 1989), phase 3 results were qualitative. The results in phase 3 directly answer the second research question regarding which features of the curriculum further developed or constrained each mentor's reported experience. The materials from the first event of phase 3 are shown in Appendices D1-D3, and the materials from the second event are shown in Appendices E1-E3. Each PD session was designed with considerations from the mixed-methods data in phases 1 and 2. For example, the investigator made an effort to include the most valued topics such as instruction on co-teaching, easily accessed resources, time to review expectations for student teachers, and strategies for direct communication with mentees.

Each of the PD sessions was designed with the same format, including four segments: Warm Up, Resource Sharing, Activity, and Burning Issues. Each of the six final mentors participated in all of the PD sessions and responded to each exit card. Both exit cards requested feedback organized by each segment of the session. The investigator hoped this would reveal participant preferences about broad features of the format of the curriculum, such as the efficacy of the Warm-Up, Resources, Activity, and Burning Issues. Participant responses showed only positive perceptions of the selected format and organization of each session. There were no clear data that would suggest an alternate format. Consequently, the final describable themes represent broad discovery regarding mentor preferences of activities, tools, and experiences and the following tables display selected participant quotes that were categorized during the coding and theming.

Theme 1: The professional development presentation should be skillfully planned and delivered.

The data from phase 3 supports the qualitative portion of phase 1, which revealed that mentors expected skillful instruction in their own professional development. For example, one mentor who attended a PD in August of 2016 (phase 1) wrote, “Very meaningful and helpful instruction to mentor teachers with how the process works” and another wrote “Very good use of 2 hours, super positive!” Table 10 represents comments regarding the PD presentation from each of the six mentors from phase 3. Mentors were generally positive regarding the presentation, and suggestions reflected each mentor’s preferences. One wrote that the read aloud was “good!” while another wrote that the “highlights could be bullet pointed.”

Table 10

How Did the Presentation Develop or Constrain Mentors’ Reported Experience?

<u>Develop</u>	<u>Constrain</u>
“Good! Enjoyed the read aloud”	“The highlights of the blog could be bullet pointed rather than read through the whole thing”
“Great opening. It was nice to be able to listen to you reading after a long day of work”	“I wish we’d had more time to go through all of it!”
“You are a great facilitator”	
“I liked the format. It got me to think about the whole mentoring experience”	
“I think this PD was very useful. It was well-planned and productive...”	

Note. Exit cards from both events.

Theme 2: PD activities should balance opportunities for mentor self-reflection with tools that promote dialogue with the mentee.

Each exit card asked mentors to describe their experiences with the activity segment of the event. For the first session, the activity was called the Teacher Survey, and for the second event, the Maestro or Mentor activity. Table 11 shows sample quotes from both sessions. Mentor teachers used language such as reflect, self-reflect, and analyze when describing how they experienced the activity. One of the six mentor teachers did not find the Teacher Survey as meaningful as the others, one forgot about it as “homework” but liked the tool when reminded in session 2 of phase 3.

Table 11

Comparison of PD Activities and Tools

<u>Develop</u>	<u>Constrain</u>
“Good resources and easy to use”	“I don’t know why, but the Teacher Survey didn’t really speak to me”
“I will use this with X to focus on Relationships”	
“It was good for self-reflection and where we want to be”	
“The PDs helped me reflect on being a mentor in real time”	
“My intern and I did this [Teacher Survey] together and it brought out a good discussion”	
“I liked analyzing which style I was in my mentoring [Maestro or Mentor activity]”	“Honestly, I forgot about the survey so this was great to recall it”

Note. Exit cards from both events.

Theme 3: The PD should incorporate ample time for peer sharing and discussion.

This theme appeared throughout the exit cards from both events. Regardless of the segment (Warm Up, Resource Sharing, Activity, Burning Issues), mentors appreciated time to dialogue with each other about their practice. Newer mentors reported value in hearing from more experienced mentors. They noted particular strategies that

would be immediately useful in the classroom, such as a suggestion for flipping the responsibility within a lesson. One mentor wrote, “I feel better now” after hearing about how much assistance the other mentors were providing their mentees in comparison to her own. Table 12 summarizes all six participants’ responses to the final question regarding their overall experience in the PD. Note that five of six participants explicitly described peer sharing as a key component of growth. These data seem to confirm similar findings from phase 1, indicating that mentors who chose to come to face-to-face sessions valued peer discussion and sharing.

Table 12

Summary of Mentor Perceptions of the Overall PD Experience

“This process has been informative. It was good to get different perspectives and ideas. I’m looking forward to receiving the discourse tools for my personal growth.”
“I think the PD was very useful. It was well planned and productive. I liked the discussions and learned from my peers. I liked the materials you provided. The PDs helped me reflect on being a mentor in real time. It’s nice to be able to STOP for a couple of hours and talk about your practice.”
“I enjoyed this PD. I think it definitely fostered my growth as a mentor. This has been my first experience with UUU and it offers a lot more than X College where I previously had student teachers from.”
“They were useful as far as general QA and sharing tips/strategies/experiences. They fostered growth by getting a chance to compare/reflect with teachers in similar situations.”
“I am so glad this was offered. I hadn’t mentored an intern for about 10 years so all the materials have been helpful. The discussions are extremely helpful and the time spent here has been enjoyable. I recommend offering this PD always.”
“I have really enjoyed it. It’s been nice hearing more experienced mentors and their best practices. Also to hear more about the classes/expectations my intern is doing.”

Note. Final question in second exit card.

Theme 4: The facilitator should provide availability between and after PD sessions to further mentor growth.

As described in Chapter three, there was a two-month gap between the sessions in Autumn 2017. The investigator gave contact information and encouraged participants to reach out with questions or concerns. Additionally, an email was sent to all participants one week after the first session with a reminder about the “homework” with the Teacher Survey. The mentor teacher who did not complete both sessions was the first to email with programmatic questions and concerns. These did not relate to the Teacher Survey. Within a few weeks, another mentor teacher responded to the email with detailed feedback on how she had used the Teacher Survey with her candidate. A portion of this email is shown below (see full email in Appendix C2):

X and I reviewed the survey a few weeks ago. He wanted to focus on Relationships. We each did one and talked about it. X had himself at 2's and 3's for most responses. I think in X's case it is more complicated. Many of his students are in Kindergarten and are non-verbal. He did tell me since we met he is now greeting every students [sic] at the door... We discussed ways to find out what the students are doing on weekends even when they can't speak.

Questions:

1. How can we make reference to their lives outside of school when they don't speak?

This email develops Theme 2 regarding tools to promote reflective discussion, and also Theme 4 regarding instructor availability between sessions. The mentor demonstrated both her skill in using this tool to further her candidate's learning, as well as her own

learning as a mentor. Further, the investigator's availability and response led to more communication as the series developed.

Two mentors responded to the investigator via email after the final session. One asked for a resource that was referenced during the PD, and praised the activity portion of the session, writing, "I wanted to follow up on the discourse tool for working with the candidates...The PD has been informative, the maestro or mentor was a good self-analysis. I am so glad I decided to attend." Another mentor affirmed the value of the PD, noting, "All of what was discussed was valuable and interesting." All emails as well as the investigator responses are shown in Appendix C2, and will be discussed in detail in Chapter five.

Phase 3 Data Triangulation

The investigator's field notes from the second PD session were used to triangulate the data for validity in the coding and theming. The notes from the first session were not thorough enough for validity, so this was improved in the second session by detailed notetaking in real time. The full coding scheme for this data is shown in Appendix C4. Table 13 shows a summary of results that corroborate the themes derived from exit card data. For example, one Special Education teacher sought advice from peers regarding how much she should help her student with planning for all of the paraeducators in the room, and coursework. Another raised the discussion about how co-teaching is a benefit to the candidate, but is a "perennial" (from field notes) question regarding true preparation for the solo classroom. This confirms the qualitative data from phase 1 regarding mentor preferences for learning about the co-teaching model.

Table 13

Four Themes Triangulated With Data From Field Notes

Theme 1. The professional development presentation should be skillfully planned and delivered.	<i>Final question needed clarification. Should have field tested the survey questions (since I made it up) and put a key on the first page to correspond themes to questions.</i>
Theme 2. PD activities should balance opportunities for mentor self-reflection with tools that promote dialogue with the mentee.	<p>We have a good relationship and my intern points out things that help me grow.</p> <p>Intern and I did it together and chose the same quadrant (rigor) as a self-assessment. It led into a discussion about the Danielson tool and what evaluations would look like.</p> <p>Good self-reflection tool for both mentor and mentee (2)</p>
Theme 3. The PD should incorporate ample time for peer sharing and discussion.	<p><i>One mentor wanted to hear from more experienced folks about the gradual release of responsibility. Mentors shared ideas, such as switching lessons with other teachers, building a schedule together.</i></p> <p><i>Discussion on the perennial question about how you authentically prepare a teacher candidate within the co-teaching model. You won't always be there to support them.</i></p> <p><i>SpEd teacher who writes individual lesson plans for 4 paras. Should intern be expected to do this? Advice and considerations from peers.</i></p>
Theme 4: The facilitator should provide availability between and after PD sessions to further mentor growth.	<i>This is where mentors asked for the discourse tool to be shared so that they have a tool for reflective questions.</i>

Note. Investigator field notes from session two. Italics represent investigator notes as written in the PD session.

Summary of Results

Each data set in this sequential bracketed design served a different purpose and contributed to answering the research questions (Creswell, 2013; Creswell 2015; Greene et al., 1989; Onwuegbuzie & Collins, 2007; Sandelowski, 2003). Accordingly, the results from each phase can now be summarized into broad discovery and categorized by the research questions.

Research Question 1: What are the characteristics of an effective pre-service mentoring development program?

Results from phases 1, 2, and 3 showed a clear set of topics that mentors preferred for their PD. This was triangulated through both qualitative and quantitative phases at three points of data collection. Results from qualitative data in phases 1 and 3 showed that mentors appreciated easily accessed resources or tools for mentoring that balanced opportunities for mentor self-reflection and promoted dialogue with the mentee. Results from phases 1 and 3 also showed that mentors expected skillful presentation of the PD. Finally, comprehensive results across each phase showed a level of sophistication from mentor teachers when considering their own expectations and requirements for professional development. As shown in phase 2, some mentors did not equally value specific models of collaboration (such as co-teaching), but collaboration itself was a consistent priority.

Research Question 2: What features of the curriculum further developed or constrained each mentor's reported experience?

The results for this question were largely drawn from qualitative data in phase 3. There were some redundant results with the first question, such as the result that skillful presentation will develop the mentor experience, while less skillful presentation was a

constraint. Similarly, easily accessed resources and tools (such as the Teacher Survey) that promoted self-reflection during PD will develop the mentor experience, while obtuse or hard to access tools (such as confusion with how to use the Mentor or Maestro survey) were a constraint.

As seen in the results from phases 1 and 3, one clear feature of a mentor curriculum that develops the mentor's experience is ample opportunity for peer dialogue. It was difficult to quantify this feature due to comments that mixed terms such as "collaboration" and "discuss" with other features of the curriculum. However, 100% of participants wrote something about collaboration with their peers on both exit cards for phase 3. This does contradict the findings of phase 2, where mentors reported neutral to moderate importance placed on collaboration with other experienced mentors. This is likely due to the fact that the small group of mentors in phase 3 valued collaboration, while many of the mentors in phase 2 who filled out the survey preferred not to attend face-to-face PD.

Finally, three (50%) of the mentor teachers who participated in the intensive PD in phase 3 communicated with the investigator between sessions. This result suggests that the mentor experience will be developed by the presenter's availability between PD sessions.

Preview to Discussion and Recommendations

Results from phase 3 confirmed early analysis of data collected in phases 1 and 2 regarding mentor preferences for topics, presentation style and effectiveness, and collaboration. The detailed narratives presented and summarized in Tables 8 to 13 offered a depth of understanding and showcased mentor voices. This depth was only possible in

the third and final phase of a sequential research design. The sequential mixed-methods data sets facilitated generalized conclusions about both the features of an effective mentoring curriculum and the reported experiences from mentors in this study.

Chapter 5: Discussion and Recommendations

Connections and Confirmation of Prior Research

The final results of this mixed-methods study confirm that mentoring a pre-service teacher (PST) is complex, multidimensional, and requires support as well as a specific skillset (Feiman-Nemser, 2001; Graham, 2006; Haymore et al., 2001; Norman, 2011; Valencia et al., 2009; Zeichner, 2010). The PST mentors in the present study evidenced well-informed preferences about the kind of professional development (PD) that would best support their learning. Because each step of this sequential study informed the next, the final results offer a comprehensive view of the perceptions and preferences of these PST mentor teachers. Additionally, the curriculum implemented in phase 3 was a successful pilot, revealing the features that both developed and constrained mentors' experiences. Suggested changes to the curriculum are informed by multiple sources of qualitative and quantitative data and offer a blueprint for future research.

The results of this study are further informed through the lenses of social learning and situated learning theories (Anderson & Stillman, 2013; Lave & Wenger, 1991; Vygotsky, 1978). Indeed, mentors' reported beliefs regarding the most important areas for learning to work with a student teacher (see Table 9 in Chapter four) offer a clear prioritization on learning in community. Mentors in this study reported that understanding the needs of student teachers and being direct in communication were extremely important. The university has a role in providing appropriate resources and tools that allow the mentor to scaffold the student teaching experience within the candidate's zone of proximal development (ZPD) (Vygotsky, 1978). For example, sequencing experiences for an effective student teaching progression were reported as

extremely important, as well as reviewing expectations for student and mentor teachers alike (again, see Table 9 in the previous chapter).

The situated nature of student teaching is also evident in the results from this study. As Anderson and Stillman (2013) noted, teacher candidates acquire knowledge and skills gradually through participation in communities of practice. This study extended the concept of the learner by incorporating the mentor (Athanasios et al., 2008). In phase 3, novice mentors learned by observing their expert mentor peers within the community of practice. As Lave and Wenger (1991) described the process, such observation allows novice mentors to learn from the everyday activities of the experts, therefore learning to speak, act, and improvise according to the norms of the community. One mentor noted, “I liked the discussion and learned from my peers” while another said, “It’s been nice hearing more experienced mentors and their best practices” (see Table 5 in Chapter four). This was also observed by the investigator and recorded in the field notes, shown in Table 6 in Chapter four: “One mentor wanted to hear from more experienced folks about the gradual release of responsibility. Mentors shared ideas, such as switching lessons with other teachers, building a schedule together.”

The Dreyfus Model (Dreyfus & Dreyfus, 1986) provided a useful framework for analyzing the mentor as learner, and the mentor’s perceived growth over time. The sample of mentor teachers in phase 3 represented a cross section of mentors. While the investigator did not collect formal data on years of teaching experience compared to years of mentoring experience, Table 14 below shows a display based on mentor comments made during the PD and program data collected during the placement process.

The characteristics of these mentors shows diversity in experience in both teaching and mentoring, even though the sample was small.

Table 14

Comparison of Mentor Teacher and Teaching Experience

Mentor 1	Veteran teacher	Experienced mentor
Mentor 2	Veteran teacher	Experienced mentor
Mentor 3	Veteran teacher	New mentor
Mentor 4	Veteran teacher	Returning to mentoring after gap
Mentor 5	Newer teacher	New mentor
Mentor 6	Newer teacher	New mentor

Each segment of the curriculum in phase 3 was designed to move the learner-mentor further along the scale from novice to expert. New mentors and the mentor returning after ten years followed adherence to abstract rules, such as requesting exact dates and timeframes in the suggested sequence of student teaching. More experienced mentors were able to adapt and make decisions based on their prior experiences and assessment of the student teacher's needs (Lyon, 2015). Importantly, the two expert mentors reported their own growth as a result of their participation in the community of practice (Lave & Wenger, 1991), while the newer mentors explicitly named appreciation for hearing from "more experienced mentors" (see Table 12 in Chapter four).

Results of this study confirmed other areas of research on mentoring and PD discovered during the literature review. Levin's (2003) study suggested that mentoring

makes the mentor more metacognitive, which is supported in this study primarily with qualitative data. One mentor wrote, “It was good for self-reflection” and another wrote, “The PDs helped me to reflect on being a mentor in real time” (again, see Table 12 in the previous chapter). Odell’s (2006) finding that mentors may choose to work with candidates for small benefits was also confirmed with these results. The exit cards from PDs in phase 1 contained multiple comments showing appreciation for the food. In phase 3, the investigator observed that effective and organized presentations, along with small items of appreciation such as a university folder for materials or a canvas totebag, communicated respect and value to the mentor. These small gestures are an important part of the mentor’s overall experience with the university and may make a difference in the mentor’s choice to volunteer again. This was stated plainly by one mentor who wrote, “This has been my first experience with UUU and it offers a lot more than X College where I previously had student teachers from.”

The anchor studies by Henning et al. (2016), Graham (2006), and Evertson and Smithey (2000) all provided important frameworks that informed the design, methodology, and research questions for this study. Notably, the Henning et al. (2016) study provided clear evidence that effective university programs are distinguished by the training and support of their mentor teachers. Evertson and Smithey (2000) also demonstrated a statistically significant impact from effective mentor development. Graham’s (2006) study earned a central feature in the curriculum developed for phase 3. Graham’s (2006) findings that there were two kinds of mentor teacher, the “maestro” or the “mentor” became a critical construct used for reflection in the mentor PD in phase 3.

This is discussed in detail when reviewing the reported features that developed or constrained the mentor experience.

Discussion and Recommendations

Topics for PD.

Results from the bracketed qualitative-quantitative-qualitative phases suggest that mentor PD should focus on a) communication, b) collaboration, c) easily accessed resources, and d) scaffolding (specifically, sequencing experiences for student teachers and understanding the needs of the student teachers). These topics were directly implemented in the development of the curriculum for phase 3. Some responses from the survey in 2017 did not directly apply to the research questions in this study, while others contradicted data from the qualitative portions. For example, collaboration with other mentors and information on the Educative Teacher Performance Assessment (edTPA) were shown as neutral to moderately important on the survey (see Table 9 in Chapter four), while these appeared as very important benefits of the PD by mentors in phases 1 and 3. This suggests that a blend of PD formats will meet the varied needs and preferences of all mentors.

Format and Delivery of the Presentation.

The results revealed other considerations for the format and delivery of PD for mentors. Some critical comments of the format and delivery of PD in Phase 1 (i.e., exit cards from 2015-16) indicated that the presentation should be skillfully planned and delivered. Improvements in this area minimized critical comments in phase 3. Overall, the positive comments about the organization, format, and effectiveness of the presentation demonstrate that a skillfully planned and delivered presentation will develop

the mentor experience. Reported constraints appeared idiosyncratic based on personal preference. For example, when responding to the effectiveness of the Warm Up activity in session 1, one mentor preferred to be read to after a long day of work, while another felt that bulleted highlights would have been more effective.

Recommendations for Curriculum Implementation.

Research on effective PD described in the literature review was implemented during the development of the curriculum in phase 3. Most importantly, meeting the specific needs and differences of adult learners (Illeris, 2004) was achieved through practices and strategies including cognitive coaching and inquiry-focused learning (Darling-Hammond, 2013; Moir et al., 2009). All of the tools were selected from resources including *Mentoring Matters* (Lipton & Wellman, 2003), *Mentoring in Action* (Radford, 2017), and from the investigator's own collection of personally designed tools for mentor training (see Appendix D2 for sample tools used at both PD events).

PD Activities Should Balance Opportunities for Mentor Self-Reflection With Tools That Promote Dialogue With the Mentee.

The Warm Up was topical and timely, offering mentors a moment to stop and reflect, build connections with each other, and generate questions to save for later. In the Resource Sharing segment, the investigator facilitated a review of collected tools specifically designed for that moment in mentoring (Moir et al., 2009). Mentors liked the resources because they “were easy to use” or were helpful for self-reflection (see Table 11 in Chapter four).

The Activity in the first session centered on the Teacher Survey. This tool was chosen based upon the charge by Athanases et al (2008) that considerations for equitable

learning must be included in the mentor PD. As such, the four quadrants on the survey were used to activate reflection about equity during the mentor PD, and to promote dialogue with the mentee in the classroom. One mentor wrote, “I don’t know why, but the Teacher Survey didn’t really speak to me” while another wrote that he forgot about it. During the review of this “homework” in Session 2, one mentor said that she had used the tool with her mentee and that it led to a discussion on teacher evaluation about equity and rigor (see summary of field notes in Table 13 in Chapter four). Another mentor explicitly wrote in email correspondence that she had used the tool in a meeting with her mentee. This email (see Appendix C2) shows how the tool was used for a profound discussion about building relationships with non-verbal students, using simple strategies such as greeting students at the door. All of the other mentors ignored the email between sessions, but attended and actively participated in the second session. This suggests that for some mentors, the tools might be more useful in the PD when the time is set aside, but less useful outside of PD when classroom duties are prioritized.

The PD Should Incorporate Ample Time for Peer Sharing and Discussion.

The format of each PD in phase 3 allowed for multiple opportunities for mentors to connect with each other. The summary of mentor perceptions of the overall experience shows (see Table 12 in Chapter four) this was perhaps the most valuable aspect of PD for these mentors. The resources used during the PD were critical for productive collaboration and peer sharing. The data showed that mentors appreciated a framework and shared language to help them analyze their practice and discuss it with each other. In Session 2, the Maestro or Mentor Activity started with a quick survey that the investigator developed from Graham’s (2006) research. Results from this survey

prompted discussion on what kinds of behaviors are more controlling and didactic (the maestro) versus which kinds of behaviors are collaborative and dialectic (the mentor). One mentor reported, “I liked analyzing which style I was in my mentoring” and the field notes indicated small changes that would further improve the implementation of this tool.

Finally, the Burning Issues segment offered mentors an opportunity to ask the facilitator and each other any questions about mentoring that might benefit the group. This was the least structured feature of the curriculum and was very productive at the end of each carefully scaffolded (Vygotsky, 1978) session. Mentors of varying levels of experience reported growth from this time of listening and peer-sharing.

The Facilitator Should Provide Availability Between and After the PD Sessions to Further Mentor Growth.

While only 50% of the final six mentor teachers corresponded with the investigator between sessions, these interactions were an important feature of the PD. One mentor benefitted from validation regarding the work she was doing with her mentee. She reported that she had used the Teacher Survey and asked if she had answered the investigator’s question “correctly” (see email in Appendix C2). Later, this same mentor emailed to remind the investigator to send out a discourse tool that had been discussed in the second session. Clearly, this mentor’s growth was developed from the face-to-face sessions, the tools provided, and the follow-up before and after. Two more mentors emailed the investigator when the discourse tool was sent out to everyone. They restated their pleasure with the PD and described it as “valuable” and “interesting.” These mentors wrote a response to a university presenter/investigator that was not required or

requested, it was simply relational. This indicated that mentor satisfaction and growth was developed through a relationship with university personnel.

Discussion on Methodology and Validity

Three points of sequential data collection gave an expansive (Greene et al., 1989) picture of mentor preferences for PD. The expansive nature of the design served to provide breadth and range of inquiry through different points of data collection. The qualitative data in phase 1 informed the survey in phase 2, and both were used to inform the curriculum in phase 3. Accordingly, the investigator chose to present the findings in a sequential order rather than integrating the findings together (Sandelowski, 2003). Further, the “bracket” of qualitative data in phase 1 and again in phase 3 was a choice to aid in the interpretation of the sequential data. This avoided reliance on seeking a “correct answer” to the research questions in any of the three phases independently (Greene et al., 1989, p. 258).

Additionally, the triangulation within the qualitative data collection and analysis enhanced the validity of the qualitative data. The qualitative exit cards from phase 1 were coded and themed independently by the investigator and a teacher educator colleague, while the field notes in phase 3 and the email correspondence served to validate the other narrative data found in exit cards from mentor events.

Limitations

There are several limitations of this study due to the sampling procedures. The sample changed with each set of data collection. This was addressed in Chapter three as part of the rationale for a two-dimensional mixed methods sequential bracketed design (Greene et al., 1989; Onwuegbuzie & Collins, 2007; Sandelowski, 2003). Certainly, the

conclusions would be more definite if the same group of mentor teachers were followed over the three periods of data collection. This would have allowed the investigator to analyze the change in mentor growth over time, and to conclude more precisely which features of the mentor PD curriculum either developed or constrained this growth.

Another limitation is that the conclusions reached from data in phase 3 only represented the voices of six very motivated mentors who chose to participate in the intensive PD. Earlier program surveys from an unpublished study (Denton & Heiney-Smith, 2018) suggested that about 55% of mentors preferred a blend of online and in-person PD, while 40% would choose to never attend a PD in person. These data indicate that the findings of the present study are best matched with a particular group of relationally-motivated mentors.

In addition to limitations with sampling, the questions on some of the exit cards in phase 1 were written in a way that inhibited detailed responses, therefore making it difficult to write thick description of the participants' responses, as outlined by Richards and Morse (2007). To supplement the sometimes short narrative data from the participants, the investigator sought to improve field notes with each session.

Finally, the investigator conducted all mentor PD at this university for 3.25 years. This encouraged assumptions, which the investigator tried to overcome with the research design, and with triangulation strategies described previously. These included inter-rater reliability with coding and theming and examination of multiple sources and types of data before drawing conclusions.

Further Research

To conduct further research using the same design, questions, and sample, the investigator suggests a follow-up with at least three of the six participants in phase 3 for semi-structured interviews. This would provide further depth and analysis allowing for thick description of participant experiences (Richards & Morse, 2007). This would require an addendum to the IRB and the willingness of the participants, but it would strengthen the results found thus far.

One possibility for further research with an entirely new design would be to conduct a quasi-experimental study with one group of mentors who do not participate in intensive PD compared with one group who does. The results could measure effectiveness of the teacher candidate due to improved mentoring. This study could be modeled on similar studies with teacher induction programs in order to ameliorate some of the differences due to context, teacher candidate skills, etc. This kind of study would be useful to teacher education programs (TEPs) looking to increase participation in mentoring programs.

Conclusion

There was an important theme that the investigator identified but was unable to substantiate with direct evidence from the multiple sources of data. This theme is that *the university must foster a culture of respect and humility to encourage mentor growth*. This theme can be inferred from the many positive comments throughout all of the qualitative data, and especially by two comments found in the exit cards from the 8/20/15 PD. One mentor wrote that it was “welcoming (extremely)” and another wrote “appreciated the tone of the meeting.

The investigator made an effort to show respect, humility, and partnership with mentor teachers at each event. This was reciprocated in person but was not effectively recorded as evidence. However, this may explain the generally positive perceptions by mentors in phase 3 of this study as well as their quick willingness to sign the IRB forms. Finally, the fact that they all showed up for the second session on a dark Thursday night in December, after teaching all day, demonstrates that an effective mentoring program is possible. The inability to substantiate this final theme with current data provides an opportunity for future study. For now, it is hoped that the results of this study will provide solid roots for new growth in research on mentor development.

References

- Achinstein, B., & Athanases, S. Z. (2005). Focusing new teachers on diversity and equity: Toward a knowledge base for mentors. *Teaching and Teacher Education*, 21(7), 843-862.
- Anderson, L., & Stillman, J. (2013). Student teaching's contribution to preservice teacher development: A review of research focused on the preparation of teachers for urban and high-needs contexts. *Review of Educational Research*, 83(1), 3-69.
- Arthur, J., Waring, M., Coe, R., & Hedges, L. (Eds.). (2012). *Research methods & methodologies in education*. Thousand Oaks, CA: Sage.
- Athanases, S., Abrams, J., Jack, G., Johnson, V., Kwock, S., McCurdy, J., Riley, S., Totaro, S. (2008). Curriculum for mentor development: Problems and promise in the work of new teacher induction leaders. *Journal of Curriculum Studies*, 40(6), 743-770.
- Biesta, G. (2012). Ethnographic and representational styles. Mixed methods. In J. Arthur, M. Waring, R. Coe, & L. Hedges (Eds.), *Research methods & methodologies in education* (80-84). Thousand Oaks, CA: Sage.
- Bozeman, B., & Feeney, M. K. (2007). Toward a useful theory of mentoring: A conceptual analysis and critique. *Administration and Society*, 39(6), 719-739.
- Caracelli, V., & Grenne, J. (1993). Data analysis strategies for mixed-methods evaluation designs. *Education Evaluation and Policy Analysis*, 15(2), 195-207.
- Center for Strengthening the Teaching Profession. (2013). Early career performance expectations. Tacoma: Center for Strengthening the Teaching Profession.

- Cobb, P., & Bowers, J. (1999). Cognitive and situated learning perspectives in theory and practice. *Educational Researcher*, 28(2), 4-15.
- Creswell, J. (2013). *Qualitative inquiry and research design: Choosing among five approaches*. Thousand Oaks, CA: Sage.
- Creswell, J. (2015). *A concise introduction to mixed methods research*. Los Angeles, CA: Sage.
- Daloz, L. A. (1999). *Mentor: Guiding the journey of adult learners*. San Francisco, CA: Jossey-Bass.
- Darling-Hammond, L. (2013). *Getting teacher evaluation right*. New York, NY: Teachers College Press.
- Darling-Hammond, L., Wise, A. E., & Klein, S. P. (1999). *A license to teach: Raising standards for teaching*. San Francisco, CA: Jossey-Bass.
- Dawson, P. (2014). Beyond a definition: Toward a framework for designing and specifying mentoring models. *Educational Researcher*, 43(3), 137-145.
- Denton, D., & Heiney-Smith, J. (2018). *Characteristics of an effective mentor development program in teacher preparation*. Unpublished manuscript.
- Desimone, L. M., Porter, A. C., Garet, M. S., Yoon, K. S., & Birman, B. F. (2002). Effects of professional development on teachers' instruction: Results from a three-year longitudinal study. *Educational Evaluation and Policy Analysis*, 24(2), 81-112.
- Dewey, J. (1904). The relation of theory to practice in education. In C. A. McMurray (Ed.), *The third NSSE yearbook*. Chicago, IL: University of Chicago Press.

- Dreyfus, H., & Dreyfus, S. (1986). *Mind over machine: The power of human intuition and expertise in the era of the computer*. New York, NY: Blackwell Publishers.
- Evertson, C., & Burry, J. (1989). Capturing classroom context: The observation system as lens for assessment. *Journal of Personnel Evaluation in Education*, 2(4), 297-320.
- Evertson, C., & Smithey, M. (2000). Mentoring effects on protégés' classroom practice: An experimental field case study. *The Journal of Educational Research*, 93(5), 294-304.
- Evertson, C. M., & Smithey, M. W. (1996). *Mentor Handbook: An Introduction to Mentoring* (3rd ed.). Nashville, TN: Peabody College, Vanderbilt University.
- Feiman-Nemser, S. (2001). Helping novices learn to teach: Lessons from an exemplary support teacher. *Journal of Teacher Education*, 52(1), 17-30.
- Feiman-Nemser, S. (2012). *Teachers as learners*. Cambridge, MA: Harvard Education Press.
- Feiman-Nemser, S., & Buchmann, M. (1987). When is student teaching teacher education? *Teaching and Teacher Education*, 3(4), 255-273.
- Fowler, F. (2009). *Survey research methods*. Thousand Oaks, CA: Sage.
- Gall, M., Gall, J., & Borg, W. (2007). *Applying educational research*. Hoboken, NJ: Pearson.
- Glenn, W. (2006). Model versus mentor: Defining the necessary qualities of an effective cooperating teacher. *Teacher Education Quarterly*, 22(1), 85-95.
- Graham, B. (2006). Conditions for successful field experiences: Perceptions of cooperating teachers. *Teaching and Teacher Education*, 22, 1118-1129.

- Greene, J., Caracelli, V., & Graham, W. (1989). Toward a conceptual framework for mixed-method evaluation designs. *Educational Evaluation and Evaluation and Policy Analysis*, 11(3), 255-274.
- Harlow, A., & Cobb, D. (2014). Planting the seed of teacher identity: Nurturing early growth through a collaborative learning community. *Australian Journal of Teacher Education*, 39(7), 69-88.
- Haslam, M. B. (2010). *Teacher professional development evaluation guide*. Retrieved from <http://learningforward.org/docs/pdf/evaluationguide.pdf?sfvrsn=0>
- Haymore Sandholtz, J. & Wasserman, K. (2001). Student and cooperating teachers: Contrasting experiences in teacher preparation programs. *Action in Teacher Education*, 23(3), 54-65.
- Henning, J., Erb, D., Randles, H., Fults, N., & Webb, K. (2016). Designing a curriculum for clinical experiences. *Issues in Teacher Education*, 25(1), 23-38.
- Henning, J., Gut, D., & Beam, P. (2015). Designing and implementing a mentoring program to support clinically-based teacher education. *The Teacher Educator*, 50, 145-162.
- Iancu-Haddad, D., & Oplatka, I. (2009). Mentoring novice teachers: Motives, process, and outcomes from the mentor's point of view. *New Educator*, 5(1), 45-65.
- Illeris, K. (2004). *Adult education and adult learning*. Malabar, FL: Krieger Publishing.
- Jaquith, A., Mindich, D., Wei, R. C., & Darling-Hammond, L. (2010). *Teacher professional learning in the United States: Case studies of state policies and strategies*. Oxford, OH: Learning Forward.

- Jenkinson, K., & Benson, A. (2016). Designing higher education curriculum to increase graduate outcomes and work readiness: The assessment and mentoring program (AMP). *Mentoring and Tutoring, Partnerships in Learning*, 24(5), 456-470.
- Knowles, M. (1990). *The adult learner: A neglected species* (4th ed.). Houston, TX: Gulf.
- Kochan, F. K., & Pascarelli, J. T. (2003) *Global perspectives on mentoring: Transforming contexts, communities, and cultures*. Charlotte, NC: Information Age Publishing.
- Korthagen, F. A. J. (2010). Situated learning theory and the pedagogy of teacher education: Towards an integrated view of teacher behavior and teacher learning. *Teaching and Teacher Education*, 26, 98-106.
- Korthagen, F. A. J., & Kessels, J. P. A. M. (1999). Linking theory and practice: Changing the pedagogy of teacher education. *Educational Researcher*, 28(4), 4-17.
- Larabee, D. (2008). An uneasy relationship: The history of teacher education in the university. In M. Cochran-Smith, S. Feiman-Nemser, J. McIntyre, & K. Demers (Eds.), *Handbook of research on teacher education*. (290-306). New York, NY: Routledge.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*. Cambridge, United Kingdom: Cambridge University Press.
- Levin, B. (2003). *Case studies of teacher development: An in-depth look at how thinking about pedagogy develops over time*. Mahwah, NJ: Lawrence Erlbaum Publishers.
- Lipton, L., & Wellman, B. (2003). *Mentoring matters*. Charlotte, VT: Miravia Publishers.

- Lyon, L. (2015). Development of teaching expertise viewed through the Dreyfus model of skill acquisition. *Journal of the Scholarship of Teaching and Learning*, 15(1), 88-105.
- Moir, E., Barlin, D., Gless, J., & Miles, J. (2009). *New teacher mentoring: Hopes and promise for improving teacher effectiveness*. Cambridge, MA: Harvard Education Press.
- National Council for Accreditation of Teacher Education (2010, November). *Transforming Teacher Education Through Clinical Practice: A National Strategy to Prepare Effective Teachers*. Report of Blue Ribbon Panel on clinical preparation and partnerships for improved student learning. Washington, DC: NCTE.
- Norman, P. (2011). Planning for what kind of teaching? Supporting cooperating teachers as teachers of planning. *Teacher Education Quarterly*, 38(3), 49-68.
- Odell, S. (2006). Overview and framework: Designing and implementing quality mentoring programs. In J. Dangel (Ed.), *Research on teacher induction*. Lanham, MD: Rowman & Littlefield Education.
- Onwuegbuzie, A., & Collins, K. (2007). A typology of mixed methods sampling designs in social science research. *The Qualitative Report*, 12(2), 281-316.
- Orland, L. (2001). Reading a mentoring situation: One aspect of learning to mentor. *Teaching and Teacher Education*, 17(1), 75-88.
- Parsad, B., Lewis, L., & Farris, E. (2001). Teacher preparation & professional development: 2000 (NCES 2001-088). Retrieved from <http://nces.ed.gov/pubs2001/2001088.pdf>

- Putt, R. (1971). *Working with a student teacher*. Dansville, NY: Instructor Publications.
- Radford, C. (2017). *Mentoring in action: Guiding, sharing, and reflecting with novice teachers*. Thousand Oaks, CA: Sage.
- Richards, L., & Morse, J. (2007). *User's guide to qualitative methods*. Thousand Oaks, CA: Sage.
- Robinson, D., Levin, J., Thomas, G., Pituch, K., & Vaughn, S. (2007). The incidence of “causal” statements in teaching-and-learning research journals. *American Education Research Journal*, 44(2), 400-413.
- Rogers, C., & Scott, K. (2008). The development of the personal self and professional identity in learning to teach. In M. Cochran-Smith, S. Feiman Nemser, J. McIntyre, & K. Demers (Eds.), *Handbook of research on teacher education*. (732-755). New York, NY: Routledge.
- Sandelowski, M. (2003). Tables or tableaux? The challenges of writing and reading mixed methods studies. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social and behavioral research* (pp. 321-350). Thousand Oaks, CA: Sage.
- Smylie, M. (1989). Teachers' views of the effectiveness of sources of learning to teach. *The Elementary School Journal*, 89(5), 543-558.
- Teaching and Learning International Survey (2008). [Assessment Measure]. Paris: Organization for Economic Cooperation and Development. Retrieved from <http://www.oecd.org/edu/school/43081350.pdf>
- Valencia, S. W., Martin, S. D., Place, N. A., & Grossman, P. (2009). Complex interactions in student teaching. *Journal of Teacher Education*, 60(3), 304-322.

- Van den Bergh, L., Ros, A., & Beijaard, D. (2014). Improving teacher feedback during active learning: Effects of a professional development program. *American Education Research Journal*, 51(4), 772-809.
- Vogt, P., & Johnson, R. (2016). *The SAGE dictionary of statistics & methodology*. Thousand Oaks, CA: Sage.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University.
- Washington Administrative Code 181-78A-264. Approval Standard – Program Design. Retrieved from: <http://apps.leg.wa.gov/wac/default.aspx?cite=181-78A-264>
- Washington State Office of Superintendent of Public Instruction. Teacher Principal Evaluation Program (2010). Retrieved from: <http://www.k12.wa.us/TPEP/>
- Wenger, E. (2010). Communities of practice and social systems: The career of a concept. In C. Blackmore (Ed.), *Social learning systems in communities of practice*. (125-143). Open University: Springer.
- Zeichner, K. (2010). Rethinking the connections between campus coursework and field experiences in college and university-based teacher education. *Journal of Teacher Education*, 61(1-2), 89-99.

Appendix A1

Sample of Exit Cards from Phase 1

Your feedback is critical to our ability to support you well! Please take a moment to let us know how this evening went for you.

What worked well about this evening? What sections were of the most value to you in your work as a mentor?

What suggestions do you have for improvement? What would you have liked to hear more about?

Are there other specific things about mentoring that you would like to receive more training or support in, at future events? If so, please name them here.

Appendix A2

Sample of Exit Card Responses from Phase 1

Worked well:

- All of the handouts
- The checklists will be helpful as the year progresses
- Good discussion on evaluation of student teachers
- Feedback/co-teaching forms and info are really great
- Going over some of the forms
- The form/paper with the 4 major questions looks like it will be very helpful in planning and discussing
- Appreciated starting by thinking of own student internship experienced
- Good to see/hear all of the teachers
- The chance to ask questions
- Much more clear and understandable than last year which was LONG and Dry
- Discussing evaluations
- Suggestions for preparation
- Resources are easily accessible

Suggestions:

- Meeting the supervisor and having a bit of time with them
- A session with the teacher candidates would be useful
- More time around the co-teaching model with experienced mentor teachers there to share examples
- If you are not going to read the slides, you probably don't need them
- Some of the theory could be explained, not read
- Assessments
- EDTpa
- Maybe have two orientations, it was difficult for many teachers to come

Appendix B

Likert-Scaled Survey Items from Phase 2 (16 of 30, Aligned with Research Questions)

Which of these areas is important for learning to work with a student teacher?

Scale:

1 Not at all important 2 Slightly important 3 Neutral 4 Moderately important 5 Extremely important

1. Determining whether a student teacher is a good fit during the matching process
2. Resources for problem solving with candidates
3. Guidelines for feedback
4. Learning from exemplary mentors
5. Guidelines for productive conflict
6. Being direct in communication with student teachers
7. Establishing a schedule for collaboration between mentor and mentee
8. Applying a protocol to promote collaboration between mentor and mentee
9. Collaboration with other experienced mentors
10. Collaboration with field supervisors
11. Instruction on the co-teaching model
12. Instruction on internship-based assessments
13. Understanding the needs of the student teachers
14. Sequencing experiences for an effective student teaching progression
15. Reviewing expectations for student teachers
16. Reviewing expectations for mentor teachers

Appendix C1

SPSS Printout Cronbach's Alpha

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.839	.847	16

Appendix C2

Exit Cards from PD Events in Phase 3

Mentor PD on 10/5/17

Please describe your thoughts on today's activities

Warming Up-Reading and discussing the blog on embarrassment and teacher timelines

- Interesting, made me reflect on my moments
- Good! Enjoyed the read-aloud!
- Great Opening. It was nice to be able to listen to you reading after a day of working.
- The highlights of the blog could be bullet pointed rather than read through the whole thing

Hot Tips-Reviewing and discussing the packet of resources for your work as mentors.

- Very helpful
- Intentional teaching techniques I want to share with the other LC teachers.
- Good resources & easy to use
- Very necessary & helpful
- This was helpful to look over
- Good connection with Danielson/Eval work

Hot Topics-Working with the Teacher Survey as a tool to promote conversation in your classroom.

- I will use this with X and focus on relationships.
- Useful
- Great! Love the survey! Gotta check myself
- I'll need to think more about how to use it before making a judgement
- Will utilize w/ X next week

Burning Issues- Supporting each other with your most relevant needs.

- The teacher-teacher chat was the most helpful
- Good for us to discuss our particular issues
- Very interesting. I enjoyed listening to everyone and their stories/questions

- It was better as a whole group & able to hear lots of people's feedback/questions
- Set up debrief/SPU work connections time

Is there anything else that you'd like to share?

- Glad I came. This is a good idea. When I have had other student teachers, through the X college, they never offered any sort of PD like this.
- Thank You
- You are a great facilitator
- Thank you for dinner, this was all very helpful
- So far I really like the ARC program set-up
- What are the expectations for teacher candidate as far as arriving to school? Leaving school? Should they be doing "contract time". Can they say they have to leave school early to make it to classes on time? How about staff meetings (Morning, etc)

Mentor PD on 12/7/17

Please provide feedback, including what worked well or what you would suggest for improvement on any or all of the following sections of the evening:

Warming Up-thought bubble reflection and discussion

- This opened up a discussion for what was frustrating or concerning.
- I liked the format. It got me to think about the whole mentoring experience.
- I really liked the style and simplicity of the thought bubbles. I was hoping we would share/discuss the rest of the thought bubbles.
- I wish we'd had more time to go through all of it! Last session and this session, the warm-ups are fun and I enjoyed hearing others' experiences.
- I enjoyed listening to what other mentors were getting out of their mentorships.

Check in since last time-reviewing and discussing the Teacher Survey and your experiences since the last meeting.

- It's very helpful to hear from other people and what their experiences are. It's good to share ideas.
- I don't know why but the Teacher Survey didn't really appeal to me.
- Interesting questions to think about.
- We did this together (my intern and I) and it brought out a good discussion.
- Honestly, I forgot about the surveys so this was great to recall it.

Activity-Maestro or Mentor?

- It was good for self-reflection and where we want to be.
- Good reflection piece!
- Interesting way to look at mentoring!
- A straight-forward but important distinction that is good to think about as a mentor, especially as a [sic] relinquish more duties and teaching responsibilities.
- Very interesting. Thought provoking. It worked well and it was fun. Good to see WHO I am!
- I liked analyzing which style I was in my mentoring.

Burning Issues- Supporting each other with your most relevant needs.

- How much assistance do I provide for classes? I feel better now.
- Helpful discussion.
- It's good to hear about others' experiences.
- Important to hear. I received some great ideas (flipping the mentor/mentee role to give mentee more responsibility)
- It's good to hear what others are doing and how it's working with mentees.
- Hearing about others' scheduling issues.

In a few sentences (or more, on back), please describe your overall experience with the PD this quarter. How did the session and materials either foster or inhibit your growth as a mentor?

- This process has been informative. It was good to get different perspectives and ideas. I'm looking forward to receiving the discourse tools for my personal growth.
- I think the PD was very useful. It was well planned and productive. I liked the discussions and learned from my peers. I

liked the materials you provided. The PDs helped me reflect on being a mentor in real time. It's nice to be able to STOP for a couple of hours and talk about your practice.

- I enjoyed this PD. I think it definitely fostered my growth as a mentor. This has been my first experience with UUU and it offers a lot more than X College where I previously had student teachers from.
- They were useful as far as general QA and sharing tips/strategies/experiences. They fostered growth by getting a chance to compare/reflect with teachers in similar situations.
- I am so glad this was offered. I hadn't mentored an intern for about 10 years so all the materials have been helpful. The discussions are extremely helpful and the time spent here has been enjoyable. I recommend offering this PD always.
- I have really enjoyed it. It's been nice hearing more experienced mentors and their best practices. Also to hear more about the classes/expectations my intern is doing.

Appendix C3

Email Correspondence with Investigator in Phase 3

Email #1 to Whole Group from Investigator:

Hi Mentors,

I can't believe it's already been a week since we gathered here at UUU! I am attaching the PDF of the Teacher Survey. I think everyone agreed to use it with your candidate- have them fill out one of the quadrants and/or use it to observe.

I will check in with you sometime in November to see how it's going, but feel free to send me any questions or ideas as well.

Just a reminder also that we chose 12/7 at 4:30 at UUU for our final small-group session.

Email #1 from Mentor:

Hi,

X and I reviewed the survey a few weeks ago. He wanted to focus on Relationships. We each did one and talked about it. X had himself at 2's and 3's for most responses. I think in X's case it is more complicated. Many of his students are in Kindergarten and are non-verbal. He did tell me since we met he is now greeting every students at the door. 🙋 We discussed ways to find out what the students are doing on weekends even when they can't speak.

Questions;

1. How can we make reference to their lives outside of school when they don't speak?
 - A. Make a simple form that parents fill out on Sunday evening. At circle on Monday students can answer what they did with picture supports. This weekend I _____. With the parents info. we can check for accuracy or prompt answers. It is a great way to make a connection and work on receptive/expressive language.
 - B. Read stories about cultures, show pictures of students that look like them.
 - C. Sit with them at snack time and interact.
2. How can we developing clear, consistent and equal consequences?
 - A. Develop and post classroom rules and consequences. Add picture supports to the rules.
 - B. Teach these rules, role play, matching game, teach vocabulary, etc.
 - C. For individuals with specific behavior concerns develop a BIP so all the teachers/para's are responding consistently. There needs to be continuity.

These are just a few issues we discussed. X is extremely respectful and has high expectations for the students so this was an easy section. With conferences next week we also talked about making those same connections with family and different approaches for different cultures. Hope I answered your question correctly.

Email Response from Investigator:

Thank you for your detailed response! It is really exciting to hear how you and X are working to brainstorm possible ways to connect with families, which sounds especially important for children who are non-verbal. While it may be an “easy” section, your meetings allow X the time to process and construct solutions to things that may just be in his head on a daily basis. I know your mentoring structure is unique, so this sounds like a great way to support him when you can’t observe him every day.

I can see how much you value this work, and I really admire your commitment to X and the role.

I will see you soon!

Email #2 to Whole Group from Investigator:

Hello Mentors,

I’m just checking in to see how things are going for you in your mentoring work.

- What are some hits and misses right now?
- Have you tried using the Teacher Survey that we worked with?
- If so, what kinds of conversation has the tool prompted with your mentee? If you haven’t used it at all, I’ve reattached it as a reminder and encouragement to spend a few minutes at least discussing one of the quadrants with your mentee, before we meet again on 12/7.
- Any questions for me or ideas for how I can support you?

I would love to hear a quick update from each of you if you get the chance. (You can just reply to me).

See you in a few weeks!

Email from Mentor after 2nd Event:

I wanted to follow up on the discourse tool for working with the candidates. I plan on working on my outline for X over the holidays . I was hoping to read over the questions during break. The PD has been informative, the maestro or mentor was a good self-analysis. I am so glad I decided to attend.

Thanks again for the tote bag and notebook.
Have a great holiday!

Email #3 to Whole Group from Investigator:

Hi Everyone,
X gently reminded me to send this along to you. So, attached please find the debrief guide that I mentioned, along with a co-teaching worksheet that is a great tool to check in about sharing the classroom.

I really enjoyed meeting and working with you all, and hope that you will stay in touch if you need anything as the year progresses. Look for information about the February 27 mentor workshop as well!

Sample Response from Mentor after Final Group Email:

It was great meeting you and the other teachers. I enjoyed the sessions and hope you'll continue to have them for mentor teachers in the future. All of what was discussed was valuable and interesting. Thanks again and Happy Holidays!

Appendix C4

Investigator Field Notes from Phase 3

Field Notes from each section of the PD on 12/7/17

Warm up:

What I like about mentoring is:

The freshness-new ideas.

I like co-teaching and having 2 adults in the classroom allows you to get to more kids in real time.

I love the extra support-someone who can make extra connections with kids that I can't reach.

It's fun to see the growth and his "ah ha" moments.

I like how it forces me to be my best self.

We have a good relationship and my intern points out things that help me grow.

From teacher survey:

My q: to mentors: how did you use this with your mentee?

Intern and I did it together and chose the same quadrant (rigor) as a self-assessment. It led into a discussion about the Danielson tool and what evaluations would look like.

My intern and I focused on the relationship quadrant and were able to connect this to the book the district is reading called "Waking up White."

Good self-reflection tool for both mentor and mentee (2)

From the Maestro or Mentor activity:

Final question needed clarification. Should have field tested the survey questions (since I made it up) and put a key on the first page to correspond themes to questions.

One mentor asked how she can present questions better to her intern so that the intellectual work is his.

This is where mentors asked for the discourse tool to be shared so that they have a tool for reflective questions.

Burning Issues:

One day per week not good for UG-don't see enough instruction.

One mentor wanted to hear from more experienced folks about the gradual release of responsibility. Mentors shared ideas, such as switching lessons with other teachers, building a schedule together.

Discussion on the perennial question about how you authentically prepare a teacher candidate within the co-teaching model. You won't always be there to support them.

SpEd teacher who writes individual lesson plans for 4 paras. Should intern be expected to do this? Advice and considerations from peers.

Appendix C5

Coding Scheme from Field Notes Triangulation in Phase 3

Theme 1. The professional development presentation should be skillfully planned and delivered.

Theme 2. PD activities should balance opportunities for mentor self-reflection with tools that promote dialogue with the mentee.

Theme 3. The PD should incorporate ample time for peer sharing and discussion.

Theme 4: The facilitator should provide availability between and after PD sessions to further mentor growth.

Field Notes from each section of the PD on 12/7/17

Warm up:

What I like about mentoring is:

The freshness-new ideas.

I like co-teaching and having 2 adults in the classroom allows you to get to more kids in real time.

I love the extra support-someone who can make extra connections with kids that I can't reach.

It's fun to see the growth and his "ah ha" moments.

I like how it forces me to be my best self.

We have a good relationship and my intern points out things that help me grow.

From teacher survey:

My q: to mentors: how did you use this with your mentee?

Intern and I did it together and chose the same quadrant (rigor) as a self-assessment. It led into a discussion about the Danielson tool and what evaluations would look like.

My intern and I focused on the relationship quadrant and were able to connect this to the book the district is reading called "Waking up White."

Good self-reflection tool for both mentor and mentee (2)

From the Maestro or Mentor Activity

Final question needed clarification. Should have field tested the survey questions (since I made it up) and put a key on the first page to correspond themes to questions.

One mentor asked how she can present questions better to her intern so that the intellectual work is his.

This is where mentors asked for the discourse tool to be shared so that they have a tool for reflective questions.

Burning Issues:

One day per week not good for UG-don't see enough instruction.

One mentor wanted to hear from more experienced folks about the gradual release of responsibility. Mentors shared ideas, such as switching lessons with other teachers, building a schedule together.

Discussion on the perennial question about how you authentically prepare a teacher candidate within the co-teaching model. You won't always be there to support them.

SpEd teacher who writes individual lesson plans for 4 paras. Should intern be expected to do this? Advice and considerations from peers.

Appendix D1

Agenda for First Mentor PD, Phase 3

Agenda for Mentor Event-October 5, 2017

Theme: We are on fire!

Warm Up:

Read blog about embarrassment and teaching and discuss

Hot Tips:

How to provide feedback

share ideas such as google doc and notebook,
give resources, tour resources in folder and discuss
peer discussion

Hot Topic:

Teacher Survey

review this, discuss
use as a self-assessment, then discuss how you could use it with your student
discuss how you could each pilot it for next time and bring it back for feedback
and sharing with the group.

Burning Issues:

What do you most need to talk about right now?

Prepare:

Folders with resources

Dinner

Notebooks for mentor/mentee feedback journal

Appendix D2

Handouts from First Mentor PD, Phase 3
Instructional Coaching-Adapted from Renton, WA School District

Method	Description	Purpose
Voice Over	Mentor voices over or thinks aloud about the different parts of a lesson, sharing what you are thinking and/or giving rationale to what you had originally planned if you are making adjustments.	This makes your teaching explicit to the candidate, who is observing.
Leaning or Whispering In	When the candidate is teaching, say or whisper immediate feedback. Make the prompt lean and general so it can be used immediately.	This allows you to coach on the spot, to give tips or help the candidate make decisions that will improve the course of the instruction mid-way.
Demonstration or Mirror Teaching (in-class)	Candidate watches the mentor do something with a particular goal, so that they can then try it on their own.	Demonstration can serve both as a way to make your teaching explicit and as an opportunity for the candidate to practice something with a particular focus.
Jump-In or Pass On	The mentor starts the lesson and then passes the teaching on to the candidate, or jumps in at a designated time.	Since the lesson is started strong, it sets the candidate up for success. If this is planned and done in a low-stakes way, it becomes a norm and is not undermining if the mentor later needs to do this when a lesson is deteriorating.
Freeze Frame or Teacher Time Out	Stop or freeze in the midst of teaching to talk as instructors about the direction of the lesson. Talk openly and professionally about instructional choices.	This strategy allows you to make your teaching explicit to each other, and to the students as well. It is important for both the mentor and the candidate to freeze their teaching and reflect, so that this is not undermining to the candidate.

Co Teaching Planning Guide

Frequency	Time	Topic
<i>Daily</i>	<i>Morning or Afternoon</i>	<ul style="list-style-type: none"> • What did we observe about student learning needs today? • How will tomorrow's plans be adapted accordingly? • Who is doing what?
<i>Weekly</i>	<i>Thursday or Friday</i>	<ul style="list-style-type: none"> • What are the learning objectives for next week? • Which co-teaching strategies will best support these objectives? • What planning should be done together, and what can be done independently? • What needs does the teacher candidate have as a learner? • What needs does the mentor have as a mentor?
<i>Monthly</i>	<i>Choose a day each month to check in for longer-term items</i>	<p>Reflect on the "Professional Roommate" relationship:</p> <ul style="list-style-type: none"> • What aspects of co-planning are going well, and what might be adjusted? • What are the next large learning goals for students? • What kinds of things might be coming up such as assessments, conferences, PD, etc.? • How is the candidate progressing on larger program goals?

*Adapted from Seattle Teacher Residency

Appendix E1

Agenda from Second Mentor PD, Phase 3

Mentor PD
12/7/17

Agenda:

Warm up-jot down some ideas. Discuss.

Check in on Teacher Survey and other resources (from exit cards last time)

Check in on other new resources in folder

Activity-Mentor or Maestro

Burning issues

Exit cards

Activity:

Procedure:

Fill out the questionnaire quickly and honestly-as you are currently, not how you want to be.

Go through each question with the group-discuss themes and patterns.

Framework from Graham (2006)-go through the highlighted pages in article.

Are there different times to use different maestro or mentor strategies? If so, why?

Present the maestro/mentor table. Roughly, these correspond:

#1-3, 1st box

#4, 5, 2nd

#6, 7, 3rd

#8, 4th

Discussion questions:

Where do you see yourself on the table?

What might be the “right” time to move to more *mentoring* strategies for you and your candidate?

Appendix E2

Handouts from Second Mentor PD, Phase 3

CO-TEACHING WORKSHEET

Critical conversations to empower the best possible working relationship

Discuss how your communication is working for both of you—do you prefer calls home, calls to cell phone, email, text, etc.

- What works best for ongoing communication (co-planning, scheduling, etc)? _____
- What works best for last-minute notices such as illness?

Discuss your parameters around the hours you work. Teaching Candidates are required to be at school during the mentor's contracted hours, and we have recommended that they follow each mentor's personal work hours. However, candidates do have a lot of coursework and teachers sometimes need time to catch up on work independently, so each pair will need to be in regular touch about the schedule.

- Parameters discussed:

If you haven't set a regular meeting time each week to plan and/or check in and reflect, please do so now.

- DAY/TIME: _____

Some mentors appreciate having a boundary around work time/quiet time in the classroom that is "interaction free." Discuss and decide if this would be beneficial to you both.

- Check when discussed: _____

For each mentor: Aside from work time, what is sacred in your classroom in terms of routines, physical spaces, organization, etc.?

- Notes from your discussion:

For each mentor: Regarding daily lesson planning, discuss: 1) how much detail you need to see in the plan (keep in mind that the candidate is required to use the elements listed in the handbook), and 2) how far in advance do you want to see lesson plans?

- Notes from your discussion:

For each mentor: If your candidate wants to try a different instructional method or strategy, how does s/he go about it in your classroom? What are the boundaries within the curriculum and your own comfort level with this subject? Are there any “untouchables” in terms of revising the curriculum?

- Notes from our discussion:

For each candidate: How do I access IEPs and any other plans in place to serve specific students in our class?

- Notes from our discussion:

For each candidate: What is the ideal way for you to receive feedback? Do you prefer written notes, setting an official feedback time, or casual conversation?

- Notes from our discussion:

Lesson Debrief Guide

These are examples of questions that can help with your reflection.

1. Choose a moment during the lesson that surprised or challenged you. What key issue(s) arose at that moment? What have you learned by reconsidering that moment after the fact?
2. If you were to implement the lesson again, what would you do differently, and what would you repeat? Why? What did you notice that would lead you to alter your approach next time?
3. What was an important decision or adjustment that you had to make during the lesson? What influenced your decision-making in the moment? Looking back on that moment, what were the advantages and drawbacks of what you decided to do?
4. What have you learned about your students during this lesson? What have you learned about yourself? What evidence of student learning can you identify, and how does that evidence influence what you will do next?
5. Discuss a specific fear or uncertainty that emerged for you during the lesson. What prompted it? How did it influence your teaching? What can you learn from it?
6. What connections can you find between what is happening in your classroom and what you are learning in your coursework? As you consider these connections, what questions have emerged as a result of this lesson? How do you answer those questions right now?

Mentor Survey-Session Two

- 1. I try to share the classroom with my teacher candidate, but I still act as the dominant teacher presence.**

Rarely

Sometimes

Always

- 2. I try to present a coherent model of effective teaching to my candidate.**

Rarely

Sometimes

Always

- 3. I am comfortable with the messiness of a less cohesive presentation of teaching.**

Rarely

Sometimes

Always

- 4. When I give feedback, I focus on technical and managerial skills.**

Rarely

Sometimes

Always

- 5. When I give feedback, I encourage the candidate to dialogue and problem solve with me.**

Rarely

Sometimes

Always

- 6. My candidate is able to independently interpret and analyze events in the classroom.**

Rarely

Sometimes

Always

- 7. I encourage my candidate to mimic my effective teaching strategies.**

Rarely

Sometimes

Always

- 8. Currently, my candidate needs more development in content knowledge than conversation about the complex dimensions of teaching.**

Rarely

Sometimes

Always

Mentor PD-12/7/17

Maestro or Mentor?

Maestro	Mentor
Dominate the classroom by providing a strong model	View teaching as a shared multidimensional experience
Provide feedback to improve technical and managerial skills of teaching	Feedback is dialogic
Encourage intern to copy effective strategies	Assist interns in interpreting and analyzing classroom events
Focus on lesson planning with emphasis on content knowledge and coverage	Approach teaching as an intellectual endeavor that requires dialogue and development

**Adapted from Graham (2006).*

Within the category of professional mentoring, I distinguish between two perspectives- that of the maestro and that of the mentor-and suggest that while maestros are excellent teachers who provide models of practice, mentors incorporate the role of teacher educator into their vision of cooperating teacher. Mentors consciously and carefully structure the clinical experience to nurture the professional growth and development of the intern (Graham, 2006, p. 1122).

Questions for Reflection

*Where do you see yourself on the table? Where do you want to be?

*What might be the “right” time to move to more *mentoring* strategies for you and your candidate?

Appendix F1

Internal Review Board Letter of Approval



School of Education

3307 Third Avenue West, Suite 202
Seattle, Washington 98119-1950

206 281 2214 phone
206 281 2756 fax

www.spu.edu

December 5, 2017

Subject: IRB Approval – IRB # 171806008 (Exempt Review)

To: Jill Heiney-Smith

Your research project "Supporting Pre-service Mentor Teachers: Design, Implementation and Perceptions of a Mentor Development Program," has been approved. This study was approved under exempt review as it met the following criteria:

- Research uses survey or interview procedures or observations (including observations by participants) of public behavior AND at least one of the following conditions exist:
- a. Human participants cannot be identified directly or through identifiers code or numbers
 - OR
 - b. The participants' responses or the observations recorded, if they became known outside research, cannot reasonably place the participant at risk of criminal or civil liability or be damaging to the participant's financial standing or employment
 - OR
 - c. The research does not deal with sensitive aspects of the participant's own behavior, such as illegal conduct, drug use, sexual behavior, or use of alcohol

Your approval is in effective until what time any methods of the study change substantively. When that occurs, you will need to renew your IRB application. Your study has been assigned IRB number: **IRB # 171806008.**

To complete your documents please add the IRB # to your study's written recruitment material and invitation to participate in the research project.

Use your study number in any further communication regarding this study.

Best wishes in the completion of your research

Sincerely,

John B. Bond, Ed.D.
SOE IRB Coordinator
Professor of Educational Leadership

Cc: Dr. Arthur Ellis



Appendix F2

Informed Consent Form



INFORMED CONSENT

Title of the Study:

Supporting Pre-Service Mentor Teachers: Design, Implementation and Perceptions of a Mentor Development Program

Investigator: Jill Heiney-Smith, heineysmithj@spu.edu. Director of Field Placements, Assistant Professor.

DESCRIPTION OF THE RESEARCH

The purpose of this study is to learn what kinds of resources, tools, trainings and experiences will better support mentor teachers in a teacher education program. Specifically, the study explores the degree to which a new professional development curriculum helps mentors to feel informed, prepared and valued in their critical role in preservice teacher development. This study has two phases.

The first phase includes the analysis of archival (ex post facto) program data that allows for descriptive statistics of Likert scaled surveys as well as coding and theming from qualitative data, including narrative feedback. The analysis of this data serves as a guide for developing a pilot curriculum to be implemented during the study, in phase two. The results and analysis from qualitative data collected during and upon completion of the mentor training will reveal how mentors perceived the effectiveness of the curriculum.

This study will include males and females between the ages of __21__ and __75__.

The research will take place in/at **Seattle Pacific University**, 3307 3rd Ave West, Seattle WA.

WHAT WILL MY PARTICIPATION INVOLVE?

If you decide to participate in this research you will be asked to consent to the inclusion of your narrative exit card responses from the two mentor events on 10/5/17 and 12/7/17, and possible email correspondence with the investigator. Exit cards are provided during

the PD session on campus. Email correspondence is entirely optional and may or may not pertain to the research.

1. To ensure anonymity, any inclusion of narrative responses in the research will not be identifiable. For example, the names of schools or specific descriptions of school contexts will be redacted.
2. After the PD events, responses will be coded and themed congruent with appropriate qualitative methods described by Creswell (2016).

Your participation will last for the two PD sessions. Possible follow up correspondence in winter 2018 is entirely optional. Participation is voluntary and you may withdraw from the study at any time.

ARE THERE ANY RISKS TO ME?

The investigator intends to publish the results of this study. Confidentiality of the institution and participants will be maintained, however there is risk due to the specificity of the study. There is minimal risk of any adverse psychological impact.

Seattle Pacific University and associated researchers do not offer to reimburse participants for medical claims or other compensation. If physical injury is suffered in the course of research, or for more information, please notify the investigator at heineysmithj@spu.edu.

ARE THERE ANY BENEFITS TO ME?

The investigator does not anticipate direct benefits to participants who agree to share exit card data in a research study.

Participant's Initials_____ Page 1 of _____
--

HOW WILL MY CONFIDENTIALITY BE PROTECTED?

While there may be publications as a result of this study, your name will not be used nor will you be identified in any way. The information in the study records will be kept confidential. Data will be stored securely and will be made available only to persons conducting the study unless you specifically give permission in writing to do otherwise. No reference will be made in oral or written reports that could link you to the study. Your de-identified data may be used in future research, presentations or for teaching purposes by the Principal Investigator listed above.

WHOM SHOULD I CONTACT IF I HAVE QUESTIONS?

You may ask any questions about the research at any time. If you have questions about the research after you leave today you should contact the Principal Investigator, Jill Heiney-Smith, at heineysmithj@spu.edu.

If you have questions about your rights as a research subject you should contact the Seattle Pacific University Institutional Review Board Chair at 206.281.2201 or IRB@spu.edu.

Your participation is completely voluntary. If you begin participation and change your mind you may end your participation at any time without penalty.

Your signature indicates that you have read this consent form, had an opportunity to ask any questions about your participation in this research and voluntarily consent to participate. In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You will receive a copy of this form for your records.

Participant's Name (please print): _____

Participant's Signature: _____

Date: _____

PI's Name (please print): _____

PI's Signature: _____

Date: _____

Copies to: Participant Principal Investigator